THE OHIO

MEDICAL AND SURGICAL JOURNAL.

Vol. 10. Columbus, November 1, 1857. No. 2.

PART FIRST.

ORIGINAL COMMUNICATIONS.

ART. I.—*Fractures and Displacements of the Ossa Nasi.* By Prof. FRANK HASTINGS HAMILTON, M. D., of Buffalo, N. Y.

OF twenty-two cases of fracture of the ossa nasi recorded in my report on "Deformities after fractures," (1) only thirteen were seen by a surgeon in time to afford relief. It seemed to me necessary, therefore, that we should be instructed how frequently the nature of this accident was overlooked by the friends, and even by the surgeon himself, to the end that we might be thus admonished of the necessity of always instituting in such cases, careful and thorough examinations. In some of the cases reported, where surgeons were called in time, and a deformity remains, it is not improbable that the accident was not recognized. The rapidity with which swelling ensues after severe blows upon the nose, concealing at once the bones, and lifting the skin even above its natural level, explains these mistakes. The nose, also, is remarkably sensitive, and the patient is often exceedingly reluctant to submit to a thorough examination. It ought, however, not to be forgotten that the omission on the part of the surgeon to do his duty will not always be excused, even though the patient himself has protested against his interference, especially where an organ so prominent, and so important to the harmony of the face, is the subject of his neglect or mal-adjustment, since the most trivial deviation from its original form or position, even to the extent of one or two lines, becomes a serious deformity.

(1) Transactions of the American Medical Association, vol. 8, pp. 355, 362 1355.

When the ossa nasi are struck with considerable force, from before and from above, a transverse fracture occurs usually within from three to six lines of their lower and free margins, and the fragments are simply displaced backwards, or if the blow is received partially upon one side, they are displaced more or less latterally. This is what will happen in a great majority of cases, as I have proven by examinations of the noses of those persons who have been the subjects of this accident, both before and after death, and by repeated experiments upon the recent subject.

These fragments are generally loose and easily pressed back into place by the use of a proper instrument. A silver female catheter, which we have seen recommended by surgeons, may answer well enough in a few instances, but it will more often fail. The diameter of the meatus at this point, where the instrument must reach in order to make effective pressure upon the ossa nasi, is on the average not more than two lines, and when the membrane which lines it is injured, it becomes quickly swollen, and reduces the breadth of the channel to a line or less. Under these circumstances, any instrument of the size of a female catheter could only be made to reach and press against the nasal process of the superior maxilla, which is too firm and unyielding to allow it to pass without the employment of unwarrantable force. In this way it happens that the operator is occasionally surprised to find how much resistance is opposed to his efforts to lift the bones, and after repeated unsuccessful attempts the case is not unfrequently given over. If, however, he had used a smaller instrument, he would have found almost no resistance whatever. A straight steel director, or sound, or sometimes even a much smaller instrument, if possessing sufficient firmness, is more suitable than the catheter. For the same reason, also, one ought never to wrap the end of the instrument with a piece of cotton cloth as some have, I suspect, without much consideration, recommended.

What I have said of the facility with which these bones may be replaced, when a proper instrument is employed, is true only when the treatment is adopted immediately, or at most within a few days after the accident.

Boyer, Malgaigne, and others have noticed the fact that these fractures were repaired with great rapidity. Hippocrates thought the union was generally complete in six days; and in a case which has come under my own observation, the fragments were quite firmly united on the seventh day.

Case.—A lad aged eleven years had the right nasal bone broken through its lower third, and displaced to the right side. Seven days after the accident he was brought to me. I introduced a strong steel instrument into the right nostril, and pressed upward and to the left, while with my thumb I pressed forcibly upon the right side of the nose. My object was to lift the bone, and carry it a little over to the left side. During the effort, the bones were felt to crack and give way slightly, but not sufficiently. I then gave him chloroform, as the manipulation had proved very painful, and again pressed in the same manner with great force, until the restoration seemed complete.

Nor has Malgaigne, whose observations are always very accurate, overlooked the fact, also, that their repair is effected without the interposition of provisional callus, but as it were "*par premiere intention.*" My own observation confirms this statement. Among all the specimens which I have seen in the various college and private collections illustrating fractures of the ossa nasi, and amounting in all to over forty, in no instance has there been detected, after a careful examination, the slightest trace of provisional callus.

I am not certain that it will always be found so easy to retain these loose fragments in place, as it is to replace them. The very swelling which takes place so promptly under the skin tends to depress the fragments, unsupported as they are by any counter force; a tendency which, possibly, is in some instances increased by attempts on the part of the patient to clear his nostrils by snuffing and hawking. I have, in one instance, noticed very plainly a motion in the fragments when such efforts were made. How we are to remedy this I am not prepared to say. None of the plans which I have seen suggested possess, in my estimation, very much practical value. Few patients will consent to the introduction of pledgets of lint, or of stuffed bags, or, indeed, of anything else, sufficiently far up into the nostril to answer any useful purpose. The membrane is too sensitive and too intolerant of irritants to enable us to have recourse generally to such methods. Then, too, it would require on the part of the surgeon more than ordinary tact to accomplish so nice and delicate an adjustment of the supports from below as these cases demand, where the slightest excess of pressure or the least fault in the position of the compress must defeat the purpose of the operator.

Yet, if one were disposed to make the attempt in certain cases where the comminution was very great, or where for any other reason the fragments would not remain in place, I think there could

be no better plan than to push up in succession a number of small pledgets of patent lint, smeared with simple cerate, to each one of which there has been attached a separate string, so arranged as that their relative position may be recognized, and that they may at a suitable time be removed in the order of their introduction.

The employment of canulas, as recommended by Boyer, B. Bell and others, allow of the nostrils being stuffed, without interfering materially with the breathing; a provision however which is quite unnecessary with a majority of persons, so long as there exists no impediment to the free admission of air through the fauces.

With nicely adjusted compresses made of soft cotton or lint, and secured upon the outside of the nose with delicate strips of adhesive plaster or rollers, we shall be better able to prevent the fragments from becoming displaced outwards, than by moulds of wax, of lead or of gutta percha, under which it is impossible to see from hour to hour what is transpiring.

The complicated apparatus devised by Dubois and recommended by Malgaigne, to lift the bones and retain them in place, seems to me indeed very ingenious, but destitute of a single practical advantage.

A more considerable force than that which I have first supposed, will break, generally, the ossa nasi transversely and a little above their middle, while, at the same time, the nasal processes of the superior maxillary bones may suffer slightly.

With neither of these accidents is the cribriform plate of the ethmoid likely to be broken or disturbed. Indeed, in numerous experiments made upon the recent subject, and in which the force of the blow was directed backwards and upwards, breaking and comminuting the nasal bones above and below their middle, with, also, the nasal processes of the superior maxillary bones, and the septum nasi, the cribriform plate of the ethmoid was, without an exception, uninjured. The exceeding tenuity and flexibility of the septum nasi at certain points, prevents effectually the concussion from being communicated through it to the base of the brain. If, therefore, after these accidents, cerebral symptoms are occasionally present, as I have myself twice seen, (*a*) they must be due rather to the concussive effects of the blow upon the very summit of the nasal bones, where they rest immediately upon the nasal spine of the os frontis, or to some direct impression upon the skull itself.

(*a*). Report on deformities after fractures; cases 16 and 18.

The amount of force requisite to break in the nasal bones, at their upper third, is very great; no less, indeed, than is requisite to fracture the os frontis. If they do finally yield at this point, then no doubt the base of the skull must yield also. Nor do I think patients could often be expected to recover from an accident so severe. To this class of fractures belongs the specimen contained in my museum, in which not only both of the nasal bones are sent in—the nasal spine being broken at its base—but also the os frontis is depressed, the nasal processes of the upper maxillary bones broken and greatly displaced, and the anterior half of the cribriform plate of the ethmoid forced up into the base of the brain. If it is meant that in *these* cases the patient is in danger from injury done to the base of the skull, through the fracture and depression of the ossa nasi, we can appreciate the value of the opinion; but we do not understand how this danger can exist when the nasal spine of the os frontis is not broken, and the upper ends of the nasal bones are not displaced backwards. But, admitting that it were possible in this way to force up the base of the skull, it does not seem to me that we ought to attach any value to the advice occasionally given, to attempt to restore the broken ethmoid by seizing upon the septum and pulling downwards. A force sufficient to break the base of the skull, never fails to comminute and detach almost completely the septum nasi. We are to proceed in such a case as we would in a case of broken skull. We must lay open the skin freely, and with appropriate instruments seek to elevate and remove, if necessary, the fragments. Indeed, after such accidents, we shall generally see plainly enough that death is inevitable, and that our services will be of no value.

Occasionally, I have observed, the bones are neither broken at their lower ends, nor through their central diameters, but only at their lateral, serrated or imbricated margins. This is rather a displacement, or dislocation, than a fracture. It is more likely to happen, I think, in childhood than in middle or old age, as in the following example:

Case.—Thomas Kelley, aged 4 years, was kicked by a horse. Two hours afterwards, when he was first seen by a surgeon, the nose and face were much swollen, and the fracture was overlooked.

One year after the accident, I found both nasal bones depressed through nearly their whole length, and especially in their lower halves. The right nasal process was also much depressed, and the

right nostril obstructed. The lachrymal canals upon this side were closed.

Sometimes the lower ends of the nasal bones are bent backwards, or laterally, constituting a partial fracture.

Case.—A lad, aged 10 years, was hit by one of his mates accidentally, with his elbow, upon the left side of his nose. I was immediately called, and found the lower end of the left os nasi displaced laterally and backwards, so that it rested under the lower end of the right os nasi. There did not appear to be any fracture beyond that which was inevitable by the mere separation of its serrated margins from the bone adjoining. The angle formed by the bone at the point where the bending had occurred, was smoothe and rounded and not abrupt as in a complete fracture.

With a steel instrument, introduced into the left nostril, I attempted to lift the bone to its place. The membrane was very sensitive, and the patient very restless under my repeated efforts. I pressed upwards with considerable force, and succeeded at length in bringing the bone nearly into position.

If there is more complete displacement, the upper ends are not usually forced backwards, but rather a very little forwards from their articulations with the os frontis, and the bones then swing, as it were, upon the lower ends of the nasal spine, as upon a pivot. In this condition, they are very firmly locked, and it requires considerable force, applied under their lower extremities, to restore them to place.

Cases.—Such seemed to be the position of the bones in the case of the lad Kelley, already mentioned, and also in a German whose nose was flattened by a severe blow, when he was eleven years old, whom I saw thirteen years after the accident in the Buffalo hospital. In this last example the bones were very much displaced backwards.

In children, also, the nasal bones may be spread and flattened, the lateral margins not being depressed or displaced, but only the mesial line or arch forced back, so as to press aside the processes of the superior maxilla: which deformity may become permanent.

Case.—A block of wood fell upon a child three weeks old, as she was lying in the cradle. The nature of the injury was not understood by the parents, and no surgeon was called. The ossa nasi are now, twelve years after the accident, much wider than is natural, and depressed; the nasal processes of the superior maxilla appearing to have been spread asunder.

Case.—Jacob Kibbs, a German, aged 7 years, fell from a height of

forty feet, striking on his face. His parents did not suspect the injury, and no surgeon was called. Twenty four years after this I found the nose almost flat. The nasal bones appeared unusually wide, and were sunken between the processes of the upper maxillary bones, which latter might be recognized by two parallel ridges on each side, slightly rising above the level of the ossa nasi.

Benjamin Bell and others have spoken of tedious ulcers, polypi, necrosis, fistula, lacrymalis, abscesses, impeded respiration, and impairment of the sense of smell and of speech, as circumstances apt to result from these injuries, and it is certain that such consequences have occasionally followed; but they must sometimes be regarded as accidents due to the state of the general system, and as having no connection with the fracture, except as this injury served to awaken certain vicious tendencies.

Case.—Two years ago a gentleman, then twenty-five years old, was struck accidentally upon the right side of his nose by a board, and the ossa nasi were displaced to the left. A surgeon made an attempt to reduce them, but did not succeed, and they have remained displaced ever since.

The nose for a time was much swollen. A few months after the accident a purulent discharge commenced from the right nostril, and at length an abscess formed in the right cheek. The abscess is now healed, but the nose continues to discharge pus, and occasionally it bleeds freely. There is a perforation of the septum, of the size of a three cent piece, which is continuing to enlarge.

No hereditary maladies exist in the family, except that, on his father's side, it has been generally observed that wounds do not heal kindly. The same is the fact with him. When a child, he was also very subject to epistaxis; at sixteen, a pulmonary difficulty began, and he had more or less cough, with hæmoptysis, for two years. Since then his health has been good. He is a lawyer by profession, but of late he has lived in the country upon a farm, and has accustomed himself to much out-door exercise.

As to the prognosis in these fractures, I can only say that either owing to the ignorance and carelessnes of the patients themselves, who neglect to call a surgeon in time, or to the difficulty of diagnosis, or to the greater difficulty in maintaining an adjustment of the fragments, it has hitherto happened that, after a fracture of the ossa nassi more or less deformity has usually remaind. I have never seen but three which could be said to be perfectly restored.

ART. II.—*Fractures and Displacements of the Septum Narium.*

Fractnres or displacements of the septum narium must occur to some extent in all fractures of the ossa nasi accompanied with depression; but they are also occasionally met with as the results of a blow upon the nose, which has been insufficient to break the bones, and in which only the cartilaginous portion of the nose has been bent inward upon the septum.

Of these simple, uncomplicated accidents I have seen seven; in three of which no surgeon was employed, or surgical treatment of any kind adopted, and it is quite probable that only in a small proportion of all the cases was the nature of the accident recognized. Such, at least, has been generally the statement of the patients themselves. The same causes will explain this which have been invoked to explain similar oversights in cases of broken ossa nasi. To which we may add, as an additional reason why it may be overlooked, the frequency of lateral distortions or deviations in the natural development of this septum.

The cartilaginous portion of the septum is that which is most frequently displaced by violence, and then it is usually at the point of its articulation with the bony septum. Next in point of frequency the perpendicular nasal plate is broken, and especially where it approaches the vomer. We omit in this enumeration, of course, those cases where the nasal bones themselves are broken down, in most or all of which, as we have already said, the perpendicular plate is more or less fractured and displaced. We cannot say how often the vomer is broken, since it is beyond our observation, except in autopsies. It is probable, however, that the force of the concussion rarely reaches it, the cartilage or the perpendicular plate giving way first and easily.

Where the deviation is only lateral, the results are less serious, yet sufficiently so in a few instances to demand our attention. Lateral obliquity of the lower portion of the nose follows generally, but not uniformly, a lateral displacement of the cartilage, and when it does exist it is not always proportioned to the amount of displacement existing in the septum, so that the septum is then made to project obliquely across the nasal passage, causing often a serious obstruction and permanent inconvenience. In one instance, also, I have known it to occasion a chronic catarrh.

Case.—A lad, (æt. 15,) was struck violently on the nose, which became immediately much swollen, but no surgeon was called.

Eight years after, I found the septum displaced laterally and to the left side, producing also a slight lateral inclination of the end of the nose. He was unable to breathe freely through the left nostril, and from the same side a catarrhal discharge had continued from the time of the accident.

The following example, in which the accident has been followed by a morbid condition of the cutaneous glands, is of more difficult explanation:

Case.—A young man, (æt. 23,) called upon me, supposing that he had a polypus nasi. I found that in consequence of a fall upon the ice, seven years before, the septum narium had been displaced to the right so as to almost completely close this nostril. In very cold weather, when the vessels of the membrane are contracted the passage is more free. The left nostril is proportionably wide.

During the last four or five years, the right side of his face has been subject to profuse perspirations. It is almost constant in summer, and only occasional in winter. The line of division between the perspiring and non-perspiring portions of the face passes perpendicularly from the top of the centre of the forehead, along the ridge of the nose, and down to the centre of the chin. The phenomenon is due, perhaps, to an increased vascularity in the right side of the face; possibly to some peculiarity in the condition of the nervous trunks, occasioned by the nasal obstruction.

A depression of the cartilage forming a portion of the ridge of the nose is necessarily accompanied with a corresponding degree of lateral displacement, with or without fracture, of its perpendicular portion, and produces, therefore, not only great deformity, sometimes a complete flattening of the end of the nose, but, also, in some instances, complete obstruction of the nostrils.

We conclude, from all that we have seen, that fractures and displacements of the septum narium are generally followed by permanent deformity, and occasionally with still more serious results. We suggest, therefore, a more careful examination in recent injuries, with a view to the ascertainment of its lesions, and it would be well, certainly, if we could devise some reliable mode of treatment.

It is doubtful whether a partition so thin and unsupported can ever be well adjusted and supported by artificial means. We possess, however, one advantage in the treatment of this accident which we do not in the treatment of broken ossa nasi, viz: facility of observation and of approach, and if we can do little with plugs and sup-

ports in the one case, we may possibly do more in the other. Nothing seems more rational, then, than to plug carefully and equally each nostril, with pledgets of lint, while we cover the outside of the nose completely with a nicely moulded gutta percha splint or case, which ought to be made to press snugly upon the sides, and permitting these to remain for several weeks, or until the cure is completed. The *papier maché* of Dzondi, employed by him in cases of broken ossa nasi, would be equally applicable here; but the gutta percha, as being more plastic, and hardening more quickly, ought to be preferred.

Attempts to remedy the deformities of the nose at a later period, belong to the department of anaplastic surgery, and the modes of procedure must be varied according to the circumstances of the case.

The following example will serve as an illustration of what may sometimes be accomplished in these cases:

Case.—A young man fell from a two story window, striking upon his face. A surgeon was called, but he did not discover the nature of the injury to his nose.

One year after the accident he called upon me for relief. The cartilaginous portion of the septum was broken just at the ends of the nasal bones, and forced backwards about three lines, producing a striking depression at this point of the ridge of the nose, while at the same time the end of the nose was thrown up. The deformity was very unseemly, and annoying both to himself and to his friends, who at first could scarcely recognize him.

Operation.—I introduced a narrow, sharp-pointed bistoury through the skin of the nose on the right side, and resting its edge upon the ridge at the junction of the cartilage with the ossa nasi, I cut the cartilaginous septum directly backwads about three lines, and then making a gradual curve with my knife, I cut downwards about eight lines towards the end of the nose. The intercepted portion of cartilage could now be easily lifted with a probe, and the line of the ridge of the nose completely restored. It was at once apparent, also, that lifting the cartilage would depress the tip of the nose, and restore its symmetry.

To retain the cartilage in place, I constructed a gutta percha splint, of the length and shape of the nose, but so formed along its middle as that it would not press upon the cartilage which I had lifted, resting well upon the ossa nasi, but not touching the ridge from the lower ends of these bones to the tip of the nose, at which

latter point it again received support. I now passed a needle, armed with a stout ligature, through the upper end of the uplifted cartilage, transfixing, of course, the skin on both sides of the nose, and this I tied firmly over the splint. This accomplished the important object of pressing backwards and downwards the tip of the nose, and thus titting up the upper part of the ridge and septum, and of more effectually securing the cartilage in place by lifting it directly with the ligature. On the second day the ligature was removed, but the splint was continued two weeks, during most of which time a band was kept drawn across the lower end of the splint, and tied behind the neck.

To prevent the cartilage from falling back when final cicatrization occurred, I pressed the sides of the splint firmly towards each other, just below the incision, so as to force as much as possible the walls of the nares into the fissure in the septum, made by lifting it up.

The result is a complete and perfect restoration of the nose to its original form.

Report of the Committee on Surgery, made to the Ohio State Medical Society, at its session at Sandusky, in June, 1857. By John Dawson, M. D., Chairman.

The committee charged with the duty of making the Annual Report on Surgery, have felt some embarrassment in the selection of a subject. The department is so extensive, and all the subjects of which it is composed being nearly of equal interest, it has seemed almost like invidiousness to attempt to make a choice.

We might, perhaps, have occupied our time acceptably by reviewing or looking into some *speciality*, some particular operation or proceeding, its merits, demerits, etc., and enough could here have been found to occupy volumes rather than reports; or we might have detailed a lot of cases operated on, by some particular method, with results; or we might have made a single operation, by ourselves or our neighbors, the basis of remarks enough to occupy the pages of an ordinary sized report; or we might have called attention to the increasing frequency of certain kinds of surgery, or rather to a new class of injuries, from railroads, machinery, and other things of the kind; or we might have taken up some *new* operation, or new method, the first of the kind which has been performed; and if it had

proved unsuccessful, have shown how ignorant the surgeon was who undertook it; or if successful, have become eloquent on the progress of surgery, exhausting the resources of rhetoric on the operator as being learned, intrepid and able; or we might have alluded to the comparative popularity of surgery in the nineteenth century, and the frequency with which exceptions are taken to the manner in which it is practised. Any of these, indeed, would have furnished more than a sufficiency for the occasion, while the most of them contain more than we could have found time to present.

Our notion, however, is to occupy a little space in a very brief *review of the present doctrines, and what is regarded as present knowledge, in surgical science.* For this purpose we will arrange our remarks under the following heads:

1.—*The Age of Scientific Surgery.*

2—*The Mechanical, or Operative Department of Surgery.*

3—*The Scientific, or Pathological Department.*

4—*What per centum of success justifies a surgical operation.*

We by no means expect to exhaust what is contained under each one of these heads, but merely wish to use them for the discussion of points which we think entitled just now to special consideration. The age of surgery is a matter that is not easily estimated, if in trying to do so, we take into consideration all the time within which procedures of some kind or other, and after some fashion or other have taken place. Surgical operations of several kinds extend back to the commencement of the historic period. They are as old as accidents and injuries, and an account of them makes up a part of the first literary efforts of our race. The *Iliad* has immortalized the names of Podalirius and Machaon for their services in the Trojan war; and the most ancient literature is interspersed here and there with details of different kinds of surgical efforts. Nor is history barren in its account of very ancient efforts, undertaken for the relief of some of the gravest forms of accident and disease. Before the Christian era 400 years, Lithotomy was practised. Operations for stone preceded Hippocrates; and, although this author never himself performed this operation, his recommendation of incisions to extract calculi from the kidney, his performance of amputations, his trepaning, his treatment of fractures and dislocations, his use of the obstetrical forceps, and his maxim, "when medicine fails recourse should be had to the knife, and when the knife is unsuccessful, to fire," go to show the date of his practice and the character of the operations compassed by his genius.

Herophilus was in the habit, in scinhosities and tumors of the liver and of the spleen, of cutting through the parietes of the abdomen, and applying medicines to those organs. We attempt, indeed, scarcely anything in modern times, in which we have not been, to a greater or less extent, anticipated by the ancients. On the ruined walls of the renowned temples of ancient Thebes, basso-relievos have been found, displaying surgical operations and instruments not very different from those in use in modern times. The *Dilator* or speculum of modern times, has its exact prototype, it is said, in one now in the museum of Naples, obtained from the ruins of Pompeii, (Dr. Johnson.) The Alexandrian surgeons exhibited ingenuity in many things. Ammonius invented an instrument and used it for breaking down stone in the bladder, thus anticipating completely Civiale, whose invention it was thought added a wreath to the crown of French surgery. Really the surgeons of the Alexandrian school excelled in some things. They were distinguished for the nicety of their dressings, and also in the use of bandages. Ægenita, having satisfied himself of the situation of stone by the rectum, made his incision, not in the centre of the perineum, as recommended by Celsus, but to one side of the raphe, as is the practice of the present day. He also inculcated the propriety of making in lithotomy the smallest possible opening in the bladder, an important thought of modern times.

We might in this connection allude to the invention of instruments and the performance of operations by the ancients more in detail, and associate each, with its date and name of surgeon, but our purpose is served, in merely directing attention here, as useful in correcting our propensity to claim things, with which the public are not familiar, or that happen to have a new appearance, as being original with us. These examples, however, are very far from proving that surgery, as a science, had an existence at the different periods to which we have alluded. The very reverse is nearer the truth. Its foundation, Anatomy, was not cultivated at all until long after the death of Hippocrates, and then but for a short time at a single school, (Alexandria.) Not only was it not cultivated for much the largest portion of Christian history, but dissections were with great zeal prohibited. Then again, what there was of surgery at a very early day fell into the hands of a very low and superstitious class, who persisted in the possession of the most important operations until a comparatively recent period. This class of individuals were the only ones that performed lithotomy in the days of Hippocrates. They retained exclusive pos-

session of the operation also at the period of the Alexandrian school, and for centuries afterwards. Hippocrates never, as we have seen, operated for stone; neither did any of the professors of Alexandria, nor any one else of any reputation for a thousand years after the operation had been inaugurated. Celsus describes a mode of operation, "*cutting on the gripe,*" though there is no evidence that this accomplished Roman ever himself practiced surgery. Rome had no practitioners of surgery for a period of 600 years after the empire was founded; and when Archagathus, from Alexandria, went thither, and ventured on that people some of the operations with which he had made himself acquainted, his title was changed from surgeon to that of "*executioner,*" and he was banished from the capital. So low really was surgery at one time that it was prohibited by edicts of the highest authority, and denounced by a certain council of savans as being derogatory to the dignity of the priesthood, and beneath the attention of all men of learning. Thus circumstanced and degraded without any fixed or established principles that might serve as a nucleus for the building up of a science, surgery continued for a period of more than 2,000 years. Occasional attempts were made to raise it from its low position, but it was not until during the fifteenth century, when the art of printing was introduced, that anything worthy of note was accomplished. Ambrose Pare, of France, and Wiseman, of England, first successfully rescued the department from the hands of barbers, farriers and magicians, and, by directing investigation rightly, succeeded in securing for it attention from men of sense, and something of public patronage. About the same time Vesalius, Fallopius, Eustachius lived, and by their anatomical researches contributed to the introduction of the new era. The commencement of this era dates back only about 300 years. Scientific surgery is, therefore, about 300 years old, a period of time but little more than the aggregate longevity of six medical men.

The Mechanical Department of Surgery.—Lately, no less than in former times, volumes have been written describing the methods only of performing surgical operations. And the American Medical Association, at its meeting last year, appointed a special committee to make a report on this department. Always it has maintained a character for attraction, and many minds have been with it entirely engrossed. Everything in regard to results was in early times mostly supposed to be due to the secrect skill or facility with which operations were performed. Confined almost entirely, for twenty centuries, to a class

of ignorant men, nothing but the mere work of the hands, the literal signification of the term, *chirurgery*, received any attention. This was strikingly instanced in the persecution and banishment of those who practiced the art when success did not happen to follow their efforts. The truth of the remark may also be recognized in the circumstance that the priests were forbidden to practice surgical operations of any kind. The Council of Tours supposed that but little else was involved in surgical operations than filthy work with the hands. The same sentiment was prominent in the Arabic mind during the time that race had exclusive charge of the science of medicine. Their surgeons exhausted their efforts in complicated apparatus, in the construction of instruments, and in the methods of operation.

Then, again, how are we otherwise to explain the universal tendency, with but here and there an exception, of those who practiced the important branches of surgery, to keep their methods of operation a secret. This, as before remarked, was not only done with great care and pertinacity, but continued in force as a practice until the seventeenth century. It is seen in the example of Ruysch, who carried with him to his grave the secret of his admirable injections; in that of Roonhuysen, who made a secret of his lever, the only substitute then known for forceps in difficult labor; and in that of Raw, who cut successfully fifteen hundred patients for stone, and kept his method of operation such a profound secret that even his own pupils published different accounts of it, after his death.

Such examples prove several things,—but they set forth, very prominently, the fact that surgery was regarded as a mere mechanical procedure, involving only mechanical ideas—something with which reason and philosophy should have nothing to do.

In taking a view of surgery from another angle, it will be noticed that the operative department failed to engross the attention of any medical man of ancient times, who was possessed of genius, or had a foretaste of the true philosophy. Hippocrates spent the force of his great endowments on medicines and acute diseases. He was but partially interested with surgery, and perhaps did no more in this line than he was compelled to do by circumstances. Celsus, the cotemporary of Cicero, and whose labors the latter so fully appreciated as to give birth to the sentiment, "Nothing *so nearly approaches the character of the gods as giving health to our fellow men*," was no surgeon. He, as already noticed, described operations, but there is no evidence that he ever performed one. Galen, who, after the lapse

of one hundred and fifty years from Celsus, succeeded to public favor, and who held dominion over both surgery and medicine for thirteen hundred years, unfortunately lived in the anti-anatomical period of Rome, when a science, the indispensable pre-requisite to surgery, could not be studied. He felicitates himself, for example, on the opportunities he had enjoyed, of having examined two skeletons at Alexandria. He dissected inferior animals, monkeys, and performed phlebotomy; but his practice in Rome was almost entirely confined to medicine. Oribaseus wrote on surgery, but he was not interested with it, and discouraged it except in very extreme cases. Paulus Ægenita did perhaps more for surgery, scientifically, than any of his predecessors; yet his frequent use of fomentations, ointments, plasters, and his love of bandages and complicated machinery in fractures and dislocations, show the dominancy of mechanics in all his efforts. Really, we find no mind, of an order commensurate with the importance of this subject, wholly engrossed in its cultivation—touching the springs that vibrate to the most valuable results—until the times of Pare, Petit, Wiseman, Pott and John Hunter.

Survey past history *by periods of time*, and still we fail to see an adequate appropriation of mind to the emergencies and important questions connected with surgery. From the commencement of the historic period to the Trojan war, 1184 years before Christ, the practice of surgery was limited to the suggestions of *instinct;* and mythology was its only exponent. For more than thirteen hundred years after the above period, which embraces the doings of the Asclepiades, of Hippocrates and Galen, anatomy was not studied as a pre-requisite of surgery, but the operations were confined mostly to those who professed intuitive knowledge, or were governed by the gods. Cato. for example, during this period, wrote down the words of incantation for curing, dislocations and fractures. The period just referred to, which comes up to the end of the second century of the Christian era, was marked, as all know, by some of the best efforts of which the human hand and mind have ever shown themselves capable. Unfortunately, however, scientific surgery came in for but a share of these. Ignorance of organization, pretended horror of blood, and false veneration of the human body, were sufficient to direct attention almost entirely from the subject. Neither Greece nor Rome furnished an example of the genus homo who successfully gave to his age operative surgery in its true light—an art depending for its success upon the strictest and most enlarged cultivation of obser-

vation and experience. It was not until medicine left the classic shores of Italy and Greece, and took up its abode the second time in Egypt, that Anatomy, for but a short period, was cultivated in connection with surgery. The age of *transition* (Renoard) if it might be so termed, commencing with the death of Galen and extending to the fourteenth century, a period of more than a thousand years, includes the agency of the Arabs—their efforts at improving medical science. Uncultivated, and without any previous knowledge of the subject, the Arabs approached it *de novo*. The Greeks, from whom so much ought to have been expected, exhausted themselves in endless controversies, imbibed, as it were, the contagion of the argumentative and sophistical mania. The Romans had demonstrated themselves, in burning up the Alexandrian Library, and, as a consequence, no better fortune awaited medicine than to be transferred to the hands of a people, not, by either habits of culture or natural endowments, fitted to receive it. After having, however, become conscious of the responsibilities resting upon them, the Arabs doffed their vandalism for the time, and commenced gathering together the debris of the Greek and Roman authors. They added some things, and many they lost. They were the first who distinguished eruptive fevers; they enlarged the boundaries of therapeutics; created chemistry and pharmacy; were among the first to establish hospitals; they separated medicine from surgery, and secured for physic the patronage and protection of their governors. They lost anatomy, not being allowed by the Mahometan religion to dissect; knew nothing of it except what they got by translating the writings of Galen. They abandoned many of the operations in surgery in use among the Greeks. They invented a great number of instruments, apparatus, &c., and seemed to calculate the efficacy of surgery by the richness of its arsenals, and the amount of pain inflicted by their operations. In order to stop hemorrhage, after amputations, they plunged the stump into boiling pitch. The Arabs improved surgery in nothing, scarcely, but its mechanics. The last and most learned of their authors, Albucasis, who lived in the twelfth century, wrote for his day an abridgement of the "Theory and Practice of Medicine," and appended to it a supplement on surgery, which consists of a description of the instruments then employed in surgical operations, with explanatory figures. His mind, to some extent, appeared to be occupied with *operative* surgery. "I have," he remarks, "undertaken this little treatise for the purpose of reviving this most useful branch of our art. I have detailed briefly

the methods of operating; I have described all the necessary instruments, and I present their forms by means of drawings; in a word, I have omitted nothing of what can shed light on the practice." Thus ends operative surgery among the Arabs.

In time there issues from the deserts of Tartary the present race of Turks, more barbarous than the Arabs. The latter were subjugated by them in many parts of the world; their civilization destroyed; their schools of medicine broken up; and, in the general wreck, the little that there was of medicine and surgery sank beneath the destroying wave—the head of physic emphatically went under, where it remained for several centuries.

The darkness and gloom which followed the subjugation of the Arabs by the Turks, continued with but little abatement to the close of the fourteenth century. The dominant Turk, showed neither disposition or ability, in his new relation, to compensate by improvement of any kind for the destruction he had caused. He came not to the temple of Æsculapius to offer penitence, much less contribution, for the wrongs he had inflicted on the world, by destroying the only nation at the time engaged in attempts at medical or other scientific pursuits.

The mind of Europe, although long anæsthetic, began to show signs of waking again into the vigor of life. In the fifteenth century evidence began to appear that the spell was about to pass off, and that the people who had formerly shown themselves incompetent to give medicine a respectable foothold among them, were at last about to be its only hope. From the east the star of medicine was about to disappear. Asia wanted it no longer; and to occidental Europe—to the west—it gradually wended its way. It first neared the shores of Greece, but no one stood there as formerly to give a welcome signal. Its genial soft light had been forgotten, never to be remembered by that people more. Approaching Italy, Beneveni and Vesalius, the latter of whom gave birth to anatomy and made it a fixture, received it cordially. Holland, in the persons of Ruysch, Raw and Camper, did the same thing. Flashing an occasional ray still farther west, France and England felt that a worthy visitor was in their vicinity, and deputed Pitard* Pare, upon the part of the former, and Arden and Wiseman on the part of the latter, to conduct ceremonies of invitation. Europe then, as if new blood had begun to circulate in her veins, or new faculties had been acquired, became conscious of her

*Pitard founded the College of Surgeons, in Paris in 1271.

vocation, and appropriated, as Greece had formerly done, some of the best of her spirits to hold communion with the genius that had been welcomed to her soil. The birth of a new era was the consequence. Medicine now became linked with the progress of the physical sciences, and with them, *pari passu*, it has since progressed. The antique debris of all cultivators was collected, more exact and thorough modes of inquiry instituted, and a sound philosophy at last was adopted.

It would be too much to expect immediately, from this change in the aspect of things, the full amount of treasure—the perfection of the calling. Such could not be true with reference to any human pursuit.

In resuming our vein of inquiry, we find that *operative* surgery shared somewhat of the general good. The new era shows it to have left the hands of the ignorant, the incompetent, and to have advanced beyond the bounds of incantation and mechanics. Every generation comes a little nearer to the truth; and we may now confidently calculate, that the time is not far when our views with reference to the true position and value of operative surgery will be more matured.

We will now proceed to our next head:

Pathological or Philosophical Department of Surgery.—There is perhaps no operation, however simple, but what may be influenced, modified or rendered useless by the presence in the system, for example, of the strumous, the arthritic, rheumatic, lymphatic, hæmic, tubercular or cancerous diathesis. The study of these states, as a consequence, must take precedence of the operative department. It matters not how well or seasonably an operation is performed, unless it be done in the light of all the morbid conditions preceding it, and present at the time,—not only no good will be accomplished, but the reputation of the surgeon may be unfavorably affected, and, what is worse still, the patient's days, instead of being lengthened and rendered more comfortable, may become shortened.

To the states of the system above noticed we apply, for the want of a better name, the term *cachexia*. Although by no means comprehended in their early stages, the *cachexia* nevertheless, in the deterioration which they occasion in their progress, are apt to be, sooner or later, pretty well pronounced. There is, indeed, often a "cropping out" that serves as an index to the peculiar character or phase of the

morbid action. Besides these more obvious demonstrations of the presence of causes which qualify the character of remedial efforts, others exist often as the consequence of a poison—a *materies morbi*, introduced into the system, the presence of which is, *a priori*, not easily ascertained, but which is nevertheless potent in the matter of results.

From Hippocrates to Galen, from Galen to Cheselden, and from Cheselden to Physic, we have had diverse and contradictory opinions expressed, with reference to the propriety of operations for *cancer*. The sage of Cos led off against the measure, but others came after him who professed to have received new light, to have made the discovery that the disease may once in a while be cured by the arts of the surgeon. As examples of the latter class, it is not necessary to refer to the ancients, many of whom were very positive in their opinions, but to authors of modern date, among whom may be mentioned Hill of Scotland, Noot of England, and Flajani of Italy. What now is the point of most interest here? For it may be premised as a fact, that a matter so fertile in opinons contains something that is either not well understood, or is, in itself, ambiguous. It would seem that several very difficult, though to appearances plain questions are involved. Does a cancerous cachexy always have fatal issue? Or has the cachexy degrees or stages, some of which are more than others amenable to treatment? Or is the complaint modified by temperament, age, sex, locality, and the like, so as to affect the question of operation? Or, finally, are we possessed of any means by which to make out a correct diagnosis? The opinion is now general, I might say universal, that *cancer*, when well pronounced, is incurable, whether in the form of scirrhus, the encephaloid fungus hæmatodes or colloid cancer. And as a consequence, premises might here be formed, founded upon this sentiment, against any operations undertaken for the purposes of cure. But another question springs up; are there not stages in the dyscrasy where remedial efforts may be interposed with reasonable probability of success, or rather for interrupting the cause of the alteration? May not carcinoma, while in the form of a mere schirrus, or an encephaloid tumor, when first developed, be extirpated? The practice of surgeons answers in the affirmative, and it is astonishing to see how general this is; while reason and philosophy answer in the negative. The dyscrasy when once set up, unless the best experience is at fault, is persistent, uncontrolable, tending to a certain result; and whether regarded as due to the presence of a *materies morbi*, or as a degeneration of normal tissues, the destructive march is none the

less certain; downward according to all observation is its tendency. Tuberculosis, diabetes mellites, hydrophobia and tetanus, have each a character for uniformity in fatal results; but it is very doubtful whether either of these stands higher in this respect than the disease before us.

An excuse for the course that surgeons generally pursue with reference to cancer may be sought for, not, as we apprehend, in diversity of opinion about the general tendency of cancerous growths, but in the fact that our diagnosis is necessarily very imperfect. The crude terms "*malignant*" and "*non malignant*," or "*analagous*" and "*hetorologous*," as applied to tumors or morbid growths, have their counterpart too often in the surgeon's mind. The term *malignant* expresses merely a result; while hetorologous implies only the presence of foreign matter in the tumor. It might be supposed that we could get something more definite from Chemistry and the Microscope; but the light by those agencies is by no means satisfactory. Chemistry tells us that the proximate animal principles found in tumors vary very much. While cancerous growths pretty uniformly consist of albumen, and the non-malignant of fat and gelatine; yet albumen is sometimes a constituent of non-malignant, and gelatine pretty constantly a constituent of the colloid or areolar form of cancer. The microscopical characters of cancer are not more conclusive. At one time it was thought the *cancer cells* had a particular form, the "caudate;" and that there were also characters in the "*juice*" diagnostically significant. These conclusions were premature, and confirm a maxim of microscopy, viz: that five years should elapse after making a discovery before publishing it. The *cancer cell* differs not in form from cells formed in growths connected with other diseases, or indeed from those occasionally found in normal tissues. This is the experience of microscopists generally; and if the statement were worth anything, we would add that it is also our own experience. Cancerous growths abound in cells, and where the formation is rapid, as is the case with several forms of the disease, the cells are very abundant, and present a high degree of development, containing nuclei and neucleoli in numbers more than normal. We have therefore to seek for the characters of malignant formations, not in any particular cell or element, as contended for a short time since by Lebert and others; but if we would heed the microscope, in the abundance and high development of cells, and their presence in parts where no cells naturally exist, etc. Now it is even easy

to see how fallacious such a guide must be when practically applied. All new growth of the *analagous* kind, if our ideas of development are not too much at fault, have their origin in a cell structure, when occurring in connection with tissues of any character; and accordingly it can only be after a growth has matured, so as to present a contrast in structure with its surroundings, that this test can be of any service. Then, again, occurring on mucous or serous surfaces, which is the seat of the form of cancer denominated *villous*, and where cell structure is maintained as the normal element, this cell test would seem to lose its force altogether. Analagous and heterologous growths here seem to fuse, so far as cell distinctions are concerned, and hence it may be presumed that when such are removed successfully by the surgeon, that is do not return after removal, they are not cancerous but cancroid. It has been, doubtless, from the removal of tumors of this character, where the essential constitutional elements of cancer were absent, that consistency has been given to operations.

The "*cancer juice*" is often alluded to as an element of diagnosis; and is regarded by some as very characteristic. Upon what such statements are predicated it is hard to discern. This juice is amorphous, as we understand it, except when it contains the granules and cells of the part from which it has been squeezed. It is viscid, whitish, or yellowish, though these are characters common to other morbid fluids, and as a consequence in themselves worth nothing.

The *stroma* of a cancerous tumor imports something more in the way of characteristics. The stroma seems to consist of fibres, in the meshes of which are deposited the *materies morbi*, in the form of cells, and it appears that it is by the increase of these cells more than anything else the disease advances. The presence, then, of a great collection of cells, and in a part where they do not naturally exist, or in other words, an "*error loci*" of cells, is, to say the least, a suspicious circumstance, and is, perhaps, of more consequence in diagnosis than any of the points, or all of them put together, to which we have alluded.

The cancer *dyscrasy*, although in the commencement often occult, attains to a condition, sooner or later, when it gives out phenomena symptomological, which, taken in connection with other circumstances, perhaps serve the surgeon most faithfully. The importance of the pathological department of surgery is merely exemplified, but by no means exhausted with cancer.

We propose now to review some of the leading surgical procedures, in, however, but a few of their aspects, for the purpose of seeing whether the contingences, results, etc., connected with them are rightly regarded. And we may say in advance, that the limits of this paper will allow of but a glance, and that, too, only at some of the more important operations. We will begin with the

Prognosis of Amputations.—There is something in amputations that needs fuller elaboration. The pathological conditions, for which amputations are proposed and practised, are far from being comprehended. From ignorance, or rather want of information here, false expectations have been inspired. Benj. Bell, for example, says in his general remarks on amputations, that he believes that not one death will happen in twenty cases of amputations, including hospital and private practice. Inman collected 3586 cases of amputations, and Fenwick 4837. Out of all these, the operation was fatal in about one in three. The statistics of later surgeons go to confirm the truth of these results in regard to amputations in general. Syme and Ferguson, two of our leading surgeons of the present day, have expressed opinions on the good success following amputations at the *hip joint* Cox, however, collected 84 cases in which amputation at the hip joint had been performed, and from these it was found that the *recoveries* were less than one in three of those operated on. In regard to the *major amputations* of the limbs, amputation of the thigh, leg and arm, the statistics by Malgaigne, from the Paris hospitals, by Lawrie, from the Glasgow hospital, by Simpson, from the British hospitals, and Phillips' collection, show a fatality in the proportion of about one in every two and a half operated upon. That is, in every *two and a half* of amputations of the superior and inferior extremities, there was *one death*. Results something like these were given to the Royal Medico Chirurgical Society in a paper read before that body, by Benjamin Phillips, in 1837. The paper having been founded on what was thought to be too limited a number of operations, the publishing committee of the society called in question the correctness of the conclusions, which were, that in 100 operations there were 23 deaths, and refused to publish it. Mr. Phillips was also requested to investigate the subject more fully before publishing any observations. Statistics were then collected from hospitals and private practice in different countries, all of which not only confirmed what had been said before the society, but showed that the estimate of 23 per cent. of mortality in amputations of the

arm, leg and thigh, was much too low, and that, as already noticed, truth makes it *one* in every *two and a half* operated upon.

Prognosis of Hernia.—Have our views of the amount of disease usually associated with strangulated hernia been entirely faultless? Pott taught the doctrine, that in cases operated upon sufficiently early, and with the due amount of care, there is scarcely any danger at all; not more, he says, than one in fifty cases die. Late researches, however, go to establish very different conclusions. Out of an extensive collection of operations, performed by a full average of competency, and under the ordinary circumstances in which the accident makes its appearance, it is ascertained that one in every two, or two and a half subjected to the operation, perishes. Of 77 cases recorded by Sir Astley Cooper, 37 died; and of the 183 collected by Malgaigne, 114 died.

Prognosis of Lithotomy.—Statistics have been published of late, going to show the results of operations for stone in the bladder. In regard to this operation, so formidable in appearance, much diversity of opinion has prevailed. As performed by some of our American surgeons, the prognosis has seemed very favorable. The reported success of several surgeons has astonished other surgeons throughout the world. Cheselden was the first to tabulate the results of cases of Lithotomy. He operated on 213 cases at St. Thomas' Hospital, with a mortality of about one in ten and a half. Coulson has a table of 6,369 cases, which shows a result of one death in six and five eighth cases. Civiale has constructed a table of 2368 operations, exclusively French; the result is one death in five and three-quarter cases. Gross has a table comprising the operations of American surgeons alone, in all 895 cases, in which the deaths are only one in twenty and a half. It is said that out of 180 cases cut, up to the beginning of 1846, by Dr. Dudley, of Lexington, Kentucky, but five deaths occurred. Mettauer, of Virginia, cut 73 cases; two deaths. Warren, of Boston, 30 cases, 2 deaths. Gibson, of Philadelphia, 50 cases, 6 deaths. In the Pennsylvania Hospital, between 1752 and 1848, 83 cases were operated on. Of this number 72 were cured, 10 died, and one was regarded as relieved. Inman, who has done so much in the way of statistics, found that of the 5,900 cases which he collected, 765 died, or one in seven and three-quarters. Dupuytren collected 356 cases operated on in Paris, the mortality in these equalled one in six. Willis, from all the statistics accessible throughout the world, embracing sujects of all ages

and different plans of operation, concludes that the general average of mortality in Lithotomy is about one in eight.

Prognosis of Operations in Ovarian Disease.—We have had much written of late years on the *history* and *statistics* of ovariotomy. While something similar to ovariotomy was practised by the ancient Jews, who were in the habit of qualifying their unfortunate females for the duties of eunuchs, by removing the ovaries, a practice that is still continued in certain parts of India; and, while the subject of ovarian disease was thoroughly discussed in the early part of the eighteenth century, by Morgagni, Payer, De Haen, Targaoni and Lieutaud, it may with propriety be assumed, that the operation only became established during the early part of the present century. The first names connected with it in modern times, are those of L'Almonier, Houston, McDowel, of Kentucky, and Lizars, of Scotland. Of 300 cases now tabulated, in which operations have been attempted for the removal of the ovarian tumor, 119 only have been successful in the removal of the disease and recovery of the patient; or 39.66 to 100, or a little less than two in five. That is, in every five operated upon, two have been successful. This, strange as it may strike us, it will be seen, is similar to the ratio of recoveries, all causes included, of amputations of the thigh.

Prognosis of Fractures.—Allied to the same inquiry is the prognosis of fractures—the per centage of mischief occasioned to the organism by the fracturing of bones. This subject has received little attention from any one of ancient or modern times. Deformities, shortening, etc., of course escaped the attention of no one who had any experience in surgery. Yet, strange as it may seem, only an occasional hint, or some accidental remark with reference to the subject, is the most that has been recorded. Hippocrates noticed that some degree of deformity accompanies the reunion of certain fractured bones; and it is to be presumed the same observation has been made by every surgeon down to the present time. But in this country, England and France, indeed, throughout Europe, nothing at all satisfactory is to to be found. Our literature is not deficient, by any means, in statistics on the occurrence and treatment of fractures. In our own country we have the statistics published by Dr. Wallace, in 1839, which embraces an account of 1,800 fractures treated in the Pennsylvania Hospital. Norris, of the same institution, has also published an account of fractures. Piercon has given the professsion an account, statistical, of the fractures in the Massa-

chusetts General Hospital up to the year 1840. Lente has done the same thing in the New York Hospital for twelve years preceding 1851. Statistics have also been furnished by Lonsdale, of the Middlesex Hospital, London, by Fricke, of the General Hospital at Hamburgh. Upon these, tables have been constructed, to determine the average fatality of such accidents, the chances of cure, etc. No attempt, however, upon anything like an extensive collection of cases has been made, to show *what have been the usual results of fractures!* What proportion of all the cases treated has been dismissed "*perfect;*" what proportion has left the hands of surgeons "*imperfect,*" with the bone shortened, bent, or otherwise deformed? When deformity has followed the treatment of a case of fracture, attention, if the trouble has occurred in the hands of an able surgeon or in the wards of a hospital, has been directed to an imagined or real imperfection in the fixtures used for retaining the fragments in place; and when it has happened in the hands of a practitioner of medicine, with an experience necessarily limited, the fault has generally been laid at the door of the practitioner, and he held responsible for consequences. The real questions—the amount of injury sustained, the prognosis in view of this, and the imperfect means in the hands of the profession to "restore order," impart primary symmetry—in short, to make a "perfect cure," have, by no means, received the consideration to which they are entitled. It would not, perhaps, be right to say that these important questions have been *ignored;* but it is right to say that they have been *neglected.*

An attempt has recently been made, to supply the deficiency to which we have alluded on the subject of fractures, by Prof. Hamilton, of Buffalo, New York. Prof. Hamilton's researches have been confined mostly to the *results of treatment,* not by those enjoying limited opportunities for skill, but the results of treatment by those having experience, those qualified to do all that can be done with present knowledge, and surrounded with an average of circumstances. The inquiry, as far as it has extended, has thrown to the surface some very important facts. Of the treatment of fractures generally, "*imperfection,*" in the form of shortened limbs, crooked bones or other deformities, appears to be "*the rule;*" and "*perfect cures*" the exception. Future researches in the same line may vary the proportions relatively, with regard either to special bones or to those of the entire skeleton subject to fracture; but we have no idea that the general law set forth by the researches of Prof. H. will ever be changed. It is a philosophical truth, that all the frac-

tures ever connected with humanity, if tabulated, would most likely confirm.

The profession are indebted to Prof. H. for his labors in this field; and we hope that he may feel the necessary interest to continue them still further.

Prognosis of Cataract.—The following are some statistics in regard to the prognosis of cataract, from a systematic treatise on opthalmic surgery, (Mackenzie.)

In 330 operations by extraction and displacement, about two in three were successful. Besides Makenzie's statistics, we find in the *Annales d' Occulestique* the results of M. Sichel's operations for cataract. From 1846 to 1854, a period of nine years, M. Sichel operated 1026 times in 641 individuals. He operated by the three methods, *extraction, division and depression,* with the following results: successful cases, 783; partial success and failures, 231. This gives a proportion of success equal to about 73 per cent., or out of every four cases operated on, nearly three were successful.

Such is a specimen of the data upon which to found a prognosis of the cure of cataract by an operation.

Tartra adds to his statistics his opinion, that *two* out of *five* patients operated on for cataract recover sight.

Roux's success at the *Charite* was somewhat more than *five* out of *eight* cases operated on.

Where the cases are well selected, and those for extraction and those for displacement are rightly distinguished, Mackenzie thinks three-fourths recover useful vision, two-thirds excellent vision.*

Prognosis of Diseases requiring Bronchotomy.—Important as is the operation of Bronchotomy, for the removal of foreign bodies from the air passages, and for the relief of approaching asphyxia from inflammation, false membrane, etc., no data have been collected sufficient to indicate the mortality connected with the operation. The value, indeed, of the operation was not put to the test, in cases of *croup*, for many years after it was advocated on theoretical grounds by Dr. Home; and it is as late as 1762 that it was first successfully performed by Mr. Andre, of London, on a little girl five years old. The cases, as far as we know, that have been tabulated, have occurred mostly in France. M. Valleix gives fifty-four cases of membranous croup in which the operation was performed. At the *Hospital des Enfans Malades*, within the last five years, the operation has been

*Ohio Medical and Surgical Journal.

performed 215 times. Results—168 deaths, 47 recoveries; or in the proportion of one recovery to about four operations.

In attempting a general review of the different surgical procedures to which we have alluded, among other things it may be remarked, that there seems, at first view, quite a similarity, in the way of results, between operations of very different nature, and undertaken for quite different purposes. Previously it has been shown that the Major Amputations, amputations of the arm, leg and thigh, inclucluded together, are fatal in the ratio of one to every two and a half, or at most to every three operated on. About the same mortality attends the operations for strangulated hernia, it being in the proportion of one in two, or two and a half. The failures in cataract are in the proportion of about one in three for useful vision. Ligature of the carotid has been performed over two hundred times, and may be classed here; it fails to be of service in the proportion of one to three or four.

Again, Ovariotomy, Bronchotomy, Amputations of the thigh, and Fractures seem to class themselves together. They all agree in the general law—*want of success in more than one-half the whole number of cases operated on.* In Ovariotomy, as we have seen, the surgeon succeds in one case in every two and a half operated on; in Bronchotomy (operations on the larynx and trachea) he succeeds in one case in every four; in amputations of the thigh, including operations at the acetabulum and on the shaft of the bone, in one case out of every four. In fractures, the data are not yet collected to warrant anything, except that *imperfection* is the general law. Prof. Hamilton's "Fracture Tables" show that in fractures of the tibia and fibula (compound and simple), perfect results are in the proportion only of one to about three of the cases treated; in fractures of the femur and clavicle, perfect results in about one in five; in fractures of the patella, perfect results in one in six. We should not wonder if these figures prove to be an approach to truth. They sound very much like it.

Formidable as is Lithotomy, its success, as performed by all operators, on subjects of all ages, contrasts very strongly with either of the classes to which we have alluded, the mortality being here in the proportion only of one in eight of the cases operated on. With regard to cancer, no law has been evolved. Rhazes, the first distinguished Arabian surgeon, who flourished in the tenth century, first opposed the use of the knife in cancer, except when the disease was

local—a circumstance that perhaps never occurs. The experience of eight centuries has had the effect only to confirm the correctness of this position.

The apparent superior success of American surgery, in several operations, is a matter also developed by the statistics before us. In cataract, American surgery reports three cases out of four as being successful. Our trans-Atlantic brethren report but two out of three. Still more striking is the difference in Lithotomy. The mortality of Lithotomy in this country, as we have seen, is only one in twenty and a half of the cases subjected to operation; in all other portions of the world, from which statistics have been obtained, the mortality is one in eight—more than double what we have here. If we were to notice the operations of certain individuals, the disparity would be still more striking. Dudley, of Kentucky, operated on 180 cases with but five deaths, or one death in 36 cases; Mettauer, of Virginia, in 73 cases, two deaths—a success greater than that of Dudley; Gross has operated 24 times, every case successful.

How is this uncommon success to be accounted for? Have we more operative skill in America than elsewhere? Or are the circumstances with which patients are surrounded, both before and after operations, better here than in the old world? Or are the cases which have been tabulated in this country, sufficient in number to reveal the true law of mortality. We are willing to concede great skill to American surgeons; but it would not only be illiberal, but unjust, to deny this to those of other countries, and especially to those of countries where opportunity for excellence and proficiency is much greater than it is here. There may be something in the circumstances surrounding patients which has favored American surgery. Dudley's patients, and this is true also of those of Gross and Mattauer, were drawn chiefly from the population of the Western States, and after the operations, most likely, were furnished with comfortable quarters in towns, villages, etc., where the air and other things were favorable to recovery. The patients of other surgeons as a general rule, being drawn from populations much more dense, and as a consequence with less stamina of constitution, have, after operations, been mostly confined in hospitals, where they were exposed to a diversity of causes adequate to change results. This view is somewhat strengthened by the circumstance that Lithotomy, as performed in this country, in the large cities, on the Atlantic side of the Allegheny mountains, has been attended with much less success

than in other regions. In the Pennsylvania Hospital, where there were eighty-three operations, the mortality, as before noticed, was a little less than one in eight. Gibson operated on fifty patients, and had six deaths, or one in a little more than eight.

Perhaps, after all, the true explanation of our alleged success in Lithotomy will be found to consist in the circumstance that the operations have not yet been sufficiently numerous to present a fair average of results. It will be noticed that in America our statistics have only been sufficient to tabulate results of 895 cases. Besides, quite a number of gentlemen who have operated, some pretty extensively, have not yet placed the results of their labors on record. What effect these unrecorded cases may have, when tabulated with those already before the profession, remains to be seen.

What number of operations in any department of surgery, supposing them to be performed with ordinary skill, or, *ceteris paribus*, alike, is necessary to reveal the true law of *average results*, has not, so far as we are acquainted, been ascertained. A surgeon may operate a few times for stone, for hernia, or do amputations, and the success may conform to the true law. On the other hand a large number, comparatively speaking, of operations may vary very much in both ways from the law. Syme, for example, operated in fourteen cases of Lithotomy. Out of this number five died, or one in two and four-fifths. The same surgeon operated afterwards in 17 cases, with only two deaths, or one in eight and a half. Martineau publishes 74 cases in which he performed the operation of Lithotomy at the Norwich Hospital; only two of these 74 cases died, or one in thirty-seven. The same surgeon operated in seventy-three additional cases in the same hospital; out of these fifteen died, or one in four and nine-tenths. Now throwing all of Martinau's operations together, 147 in number, we have a mortality of one in eight, which is about what is common, as we have seen, in Lithotomy. Dudley's 180 cases show no approximation to the law of mortality, being in the proportion of only one death in 36 operations. Perhaps if the same surgeon should operate in 180 cases more, or in three or four times this number, the results would be so far below the success of his reported cases as to exhibit the average mortality of the operation. Gross, who has operated 24 times successfully in succession, might lose every other case in the next 24 operations; or a loss of three cases in succession, would reduce his results to the common standard, a circumstance that has occurred to other good surgeons. "Take

care," says Sir Astley Cooper, "how you draw any practical deductions from particular cases. I, and many others, have for a considerable length of time met with extraordinary success in operating for stone, when four or five unsuccessful cases in succession have come, which have generally brought down the result to the amount I mentioned, viz: that two in fifteen die."

We have had, as already noticed, 895 cases of lithotomy tabulated, with a mortality of one in twenty operations. This success, then, implies so much that cannot be reasonably explained by operative skill, superior methods of operation, or stamina of constitution on the part of patients, that we are left with but the alternative, viz: that we have not yet had a sufficient number of operations to develop the true results. The average mortality of the operation was not thought to be approached, until Inman had tabulated for Europe over 5,000 cases, and it is somewhat doubtful whether this number is sufficient. It would be better to have 10,000, or even 20,000. Indeed, the greater the number the more valuable the deductions.

In coming to the conclusion that the success of American surgery, as set forth by the operation of Lithotomy, is explicable on the hypothesis to which we have referred, it is not necessary for us to state that we have had no disposition to detract from the reputation of our surgeons, or call in question the truth of results reported, not even those of the Mississippi valley, which show the greatest want of conformity to the law as revealed by statistics. But, on the contrary, while all are justly entitled to belief in the statements of what they have done, and while the utmost faith may be exercised in regard to their reports of cases, it may be submitted that a fallacy of prognosis is here involved, that cannot be otherwise than detrimental to the profession, and detrimental even to operators themselves. A loss of but one in twenty, in Lithotomy, shows a success in the operation that is not true as a rule, and consequently calculated to mislead, to inspire false hopes. Great reputed success begets corresponding expectations, on the part of both surgeon and patient; and perhaps no one matter is prolific of deeper mischief to the profession. When Pott said that the operation for strangulated hernia, if applied in time seldom fails, so seldom that he believed not one in fifty dies with it, he gave utterance to an opinion that was not only not creditable to himself, but decidedly pernicious in its effects upon the progress of surgery. The same may be said of the opinions of Ormerod and Syme. The former has stated that amputation of the thigh *seldom*

fails; the latter after amputating at the hip joint once successfully, states that this operation, if done quickly and properly, would be generally successful, if not uniformly so. Ferguson, in his work on surgery, has done equal injury by over-estimating the success of amputation at the hip joint. We repeat that such opinions, although expressed, in many instances, from convictions of their truth, and perhaps also of their utility, exercise no salutary influence, but the very reverse.

A further exemplification of what we have in this connection suggested, is seen in the expectations of the profession and of the people, in regard to *Fractures*. Adopting the principle that fractures, simple or compound, unless attended with very untoward circumstances, should get well without deformity, medical men have been as ready as any other class, to pass judgment against the attendant who has had the charge of a case followed by prominent imperfection. South, for example, of St. Thomas' Hospital, in a note to Chelius' surgery, says: "In simple fractures of the thigh bone, except with great obliquity, I have rarely found difficulty in retaining the broken ends in place, and in effecting the re-union without deformity, and with very little, and sometimes no shortening. For contrary results the medical attendent is mostly to be blamed, as they are usually consequent on his carelessness or ignorance."

Skey, the successor to Pott in St. Bartholomew's Hospital, says: "One is at a loss to find an apology for *those surgeons to whose want of care, and even of humanity*, may be attributed the numerous examples of distorted and contracted members, which have cast a reproach on the surgery of Great Britain."

We have adduced these instances, as examples of the creation of a very injurious fallacy, because, besides showing its prevalence, they also show the character of mind involved in the deception. It would be no trouble at all, to post up any quantity of reputed success and illiberal strictures, emanating from tyros and those who have had little or no experience; but it does seem strange, that a matter of such vital importance, in every aspect in which it can be contemplated, should be so little understood by those who are at the head of the profession, and who are regarded as law-givers. The fallacy before us is a *non causa pro causa*—an assignation of a false cause. The want of success in fractures should not, as a rule, be laid at the door of the profession, and it should not be held responsible for failing to make a limb as good as it was, as perfect in every respect as

when it left the hands of the Creator: but, generally, it should be attributed to the accident itself, or to imperfect apparatus. These, if rightly looked into, will, in a great majority of cases, reveal the true cause of results.

In reflecting on the topics to which we have adverted, and the statistics passed again and again in review, it might occur to some that after all the truth is not yet developed — that the statistical method of which we kave made use in getting at results, is by no means conclusive — that there never were two cases, in surgery or medicine, exactly, in all respects, alike.

It may be true that we have not yet arrived at the whole truth, in regard to any of the surgical procedures to which we have referred. I presume we have not. It would be strange, where the questions are so complicated, requiring such a great length of time for solution, and involving so much of mental culture, if we had reached the *ne plus ultra* of the inquiry. The most that can be said perhaps, is that we are now on the right track, and everything combines to intimate, not only progress, but approximation to the truth. The method adopted, the statistical, is one of the most philosophical instruments of scientific research. It has been not inappropriately termed, the mathematics of medical science. It has been applied to many of the physical sciences, including Astronomy; it has been brought to the solution of many of the problems of human life and social existence; and in all instances has been characterized with effects that have commended it to the confidence of those who have a taste for accuracy. Applied to the solution of questions in medicine and surgery, it has been productive of consequences attainable, it seemed, in no other way. Individual and limited experience have been placed by it in the proper light before the profession, while from the observation of great numbers of cases properly tabulated, "true facts" have been elicited, rules set forth, that very likely will stand the test of all future research, and thus serve as so many points that are settled.

It is true that no two cases in either medicine or surgery are exactly alike. Each case has its individualities, certain phenomena that entitle it to the character of an identity. But it is equally true, also, that there are general phenomena, facts and events that are common to a great number of cases, and it is upon this universally acknowledged truth that classification in all departments of medicine

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is founded. A classification is good or bad, according as it takes in perfect agreements, rather than resemblances and analogies. There can be no objection to the principle in question—there may be to its application. When a case of surgery is classed with other cases, for the purpose of serving as a basis of inference, it is because of the supposed *sameness* of most of its phenomena. The case, however, may be possessed of other phenomena, peculiarities we call them, which may not suit the classification. These, when rightly observed, although of less frequent occurrence, and perhaps more occult, must in time also necessarily yield their secrets to the potency of the statistical method of inquiry. The greater the number of cases that can be tabulated, the more accurate the inferences. Numbers, indeed, seem to compensate somewhat for the impossibility of calculating in regard to the influences of erratic phenomena; and it is a matter of astonishment how singularly effective the plan has proved itself to be.

Contemplated, then, as an instrument of research, the evidence furnished by statistics, when properly collected, is entitled to the highest credit.

If the facts which we have now thrown together, under the general head of surgical pathology, prognosis of operations, etc., have any practical bearing, this will be found to consist in drawing attention to the circumstance that we, as a nation, or as a generation of the nineteenth century, have placed the success of surgical operations very generally above the truth. Nor, as we have shown, have we been alone in this fault. We have inherited it from our fathers, and we have not only perpetuated it, but, by reason of the general swelling tendencies of our nature, have added to it—have made the fault fat. We have a notion that we are a great people, that our kind of civilization is the only one ever on the earth worth anything; that the spontaneous movement of an Anglo-Saxon is a nearer approach to perfection than cultivation can impart to any other race. To help us along in our feeings, we have our surroundings on an enlarged scale—high mountains, the broadest valleys, the widest prairies, and the longest rivers—minerals, money and grain beyond calculation. Such circumstances, or rather such possessions, could not very well be inoperative. They have not been in our case. Besides all other things, we have derived from them a morbidly high opinion of ourselves. We have contracted a kind of general hypertrophy. Our eyes have become very large; so have our expectations. We have

over-rated our success in almsst everything we have undertaken to do; *and there have been more than the ordinary motives present to do this in surgery.* Fond of being regarded as successful, our surgeons, as a general rule, have let no opportunity pass to present the bright side of the picture. So predominant has this feeling been, that the otherwise good name of some very distinguished men, of both ancient and modern times, has been by it brought into disrepute—truthful and candid in everything except their results in surgery. Touch this subject, and they become at once romantic.

In summing up what has been advanced, the following points seem entitled to notice:

1. Surgery, although of very ancient origin, has had, during nine-tenths of the time of which we have anything like a reliable account of things, a very slow rate of progression.

2. The literal signification of the term *chirurgery*, of which "surgery" is an abridgment, shows that mechanics was anciently regarded as making up almost the entire of the department.

3. Operations were undertaken and performed, until within the last three hundred years, mostly under the direction of the gods. Poets, statesmen and philosophers, in their views of what was requisite for the cure of severe injuries, paid but little attention to the professed surgeons of the day, but invoked the aid of Apollo, the ancient god of physic.

4. Those into whose hands surgery was at first committed, had no conception of the knowledge necessary to the performance of even the simplest operation; and afterwards, when anatomy was ascertained to be requisite, political and religious edicts were interposed to prevent its study.

5. The mechanical era of surgery reached its climax during the time that the Arabs had charge of medicine, as was expressed by the variety and complication of apparatus which they invented.

6. After the agency of the Arabs, when medicine returned to Europe, surgery began to be regarded as something, the proper consideration of which involved science as well as art. Different departments of nature began to be interrogated, instead of following the blind authority of the ancients. It came to be suspected that a butcher might amputate the thigh, but that it required the philosophy of a Plato, who by the way was also something of a surgeon, to know whether the operation should be performed.

7. The philosophical period of surgery not only takes in everything pertaining to mechanics which can be made available in an operation, but also proper views of surgical pathology—the amount and character of the disease present, the nature, extent, etc., of injuries, and the ability of the organism to cure itself.

8. Success, as a general rule, has been over-rated by surgeons. This has been due to several causes. Limited experience, which is capable of proving anything, however ridiculous, has been too often appealed to when favorable, and but seldom when otherwise. This error has been more general than might at first have been supposed. Giving publicity to a failure in an important operation looks too much like publishing a surgeon's own shame, and, as Hippocrates suggests, little minds, conscious that they have nothing to spare, can't get their consent to take the investment—to embark in that kind of enterprise. Where it is important that posterity should know the truth, the man of real ability will confess his errors. The value of an operation can only be tested by enlarged experience. Great numbers reveal the truth in spite of opposition. A Royal Society, as we have seen, was surprised on learning the mortality, as shown by statistics, of amputations, and could only be induced to believe the truth after the most thorough re-examination had been instituted.

9. As a consequence of getting up a false standard of success, hopes are inspired that cannot always be realized. The surgeon gets improper conceptions of the amount of risk involved—the many contingencies that affect results. He too often finds himself unable to meet expectations that have been created for him, or that he himself has been instrumental in creating. The consciousness that, although he has failed in curing his case, he has exhausted the resources of the science in his favor, amounts too often to nothing, so far as satisfying the patient is concerned. Trouble results to both parties; and, as might be expected, from the contentions which usually ensue, a final result is, that the dignity and usefulness of the profession are impaired.

10. Surgeons themselves having been most to blame for false views in prognosis, to them, and to them alone, we must look for the remedy. When an eminent surgeon, for example, of Paris, London, Philadelphia or New York, stated that fractures of the thigh bone, or clavicle, except when very oblique, should in nine cases out of ten be cured without deformity, those of little experience in the profession, and the people, believed the assertion — took the saying as

the rule, and acted accordingly. The physician was ready to blame himself or his neighbor, for not coming up to the standard; and the people were ready to do the same thing — or rather to supply his deficiencies of practice out of his purse. Having, we repeat, been instrumental in getting up the trouble, surgeons would now feel themselves called upon to supply the remedy. Every consideration calls for this. It is not only due to the welfare of the profession, but it is required by the cause of truth. There is enough in the calling that will commend it to confidence and esteem, without extravagance and false estimates. Let the truth have fair play, and no one will then have reason to complain. But, most of all, we want the truth for the truth's sake.

What per cent. of success justifies an operation? We have met nowhere with a discussion of this question. Perhaps it is complicated with so much requiring consideration, so much that has reference to the especial character of the case or class of cases presented for operation, that surgeons have recognized it as a rule, that *no rule can be established* — that the propriety or impropriety of an operation must be determined by the individual features of each case. With operations instituted merely for the purposes of symmetry, or the repair of many injuries, as is the case with a large proportion, there can be no question of any great importance. Instituted, however, for the purpose of curing a disease, or avoiding the consequences of an extensive accident, many questions may arise touching the propriety of the procedure.

The mortality connected with surgical operations, as all know, may proceed from several sources. It may be due simply to the operation itself, or to the disease for which the operation is instituted. A few thoughts on each of these topics.

Operation mortality, from a variety of circumstances, is difficult to understand. With its *ratio* we are not at all acquainted; we merely know some of the things by which this is influenced. The kind of mortality before us must always be varied by the character for vital importance of the parts or organs involved. It must necessarily be higher in amputations of the thigh than of the arm; in the ligature of a large, than of a small artery. Amputations of the thigh, particularly of the hip joint, so interferes with, or influences the movements of the organism, that if statistics could be obtained showing the results of the operation in perfectly healthy conditions of the system, it would be seen to be very high, for the reasons already

given. In the same category stands the ligature of the *arteria innominata*, which has now been performed *eleven* times with fatal results in every case. This shows too much mortality to exclude the operation from the larger share of it. The same result would, though for different reasons, follow ligature of the ascending and descending vena cava, and most likely also ligature of the portal vein or renal arteries. No attempt at extirpation of the heart, the lungs, the liver, or the kidneys would be thought of, because of the essential character of these organs to the system, and the incidental injury and destruction of other parts indispensable to life.

The mortality proper to operations, it is equally evident is varied by much that relates to the operator, methods of operation, adjuvants, etc. Greece, Italy and Arabia, while they prohibited the cultivation of the knowledge on the part of the operator necessary to perform an operation in the light of the structures involved, could not expect success; nor did they receive it at the hands of their surgeons. Frere Jaque, of France, who, during the fore part of his career as a lithotomist, was in the habit of plunging the knife indiscriminately into the perineum, of course raised the mortality of the operation much above its proper standard. The same may be said of every one else ignorant of structure, relation, etc. *Dexterity* and *method* have their value; but the latter much less than the credit it usually receives. Success is a matter regulated entirely by higher considerations—an acquaintance with locality, relation and physiology of the parts involved, and prevailing diathesis. Surgeons equally acquainted with these, only show weakness in contending for particular plans of operation; or some particular way of holding the knife. We had an instance in point lately, in a diatribe between a London and Edinburg surgeon—Ferguson and Syme. The question was, how Liston held the knife in operating for stone in the bladder?

The use of anæsthetics in surgery, although instituted for a different purpose at first, has lately been suggested as having an influence over operation mortality. Simpson has put himself to the trouble to collect statistics on amputations of the thigh, *with* and *without* the use of anæsthetics. He comes to the conclusion that the use of such agents in this operation, saves about eleven per cent. We have no comments to make on this conclusion. It comes from an ardent and able advocate of anæsthetics, whose limit to their application is

almost undefined. Preserving a patient from pain while an operation is going on, may rob the procedure of some of its dangers, as well as of its terrors. The pain occasioned by operations exhausts in several ways; and simply the removal of this, saying nothing about the increased facilities afforded to the surgeon by the passive state of the patient, may increase the chances of recovery.

The mortality of operations is again varied by the state, at the time, of the system. The presence of a diathesis or a chachexia could not otherwise act than to effect results. Paget states it as his opinion that the operation for the removal of cancer of the breast, has a mortality of its own of ten per cent. at any stage of the disease; and instituted after the cachexia is developed, it is higher.

We have been noticing the mortality proper of operations—the loss of life simply incident to cutting, sawing, etc. We will now, for a moment, offer a remark or two on the mortality of injuries and diseases, when not subjected to surgical efforts. This opens a wide field of inquiry, and one that we shall make no attempt to occupy. A very few things in connection with the subject will serve our purpose.

Very few accidents of a grave character, and no diseases scarcely, with the single exception, occasionally, of cancer, have been allowed in this age of invention and improvement, to go to a final issue without interference of some kind or other; and when such has been the case, the circumstances have generally been of a character that rendered it impossible to ascertain results.

Paget, in a lecture delivered at the College of Surgeons, about four years since, stated that the average duration of cases of cancer of the breast, when left to themselves, is *thirteen months* greater than when the diseased breast is removed by an operation. In a late number of the London Lancet, after investigating the subject more fully, the same author gives 75 cases not submitted to operations, and 64 cases that were operated on. The average duration of life in the class not operated on, was 48 months; in the class subjected to operation, 52 months, a difference of four months in favor of the latter. This estimate, it should be remembered, does not include those who perished from the immediate effects of the operation, which, if given, might change the results very essentially. Accident sometimes develops a truth in point—shows the mortality of injuries when unaided. It occasionally has happened that it proved inconvenient, and sometimes impossible, for military surgeons, after

a battle, to give attention to some of the graver forms of injury, such as compound or cominuted fractures of the thigh bone. Such not being subjected to the usual practice of amputation, have went to a final result, managed alone by the *vis medicatrix natura*. Now, from the circumstance, as it has been noticed, that a larger proportion of such cases—cases requiring amputation on the shaft of the bone or at the hip joint—recover when left to themselves, surgeons are beginning to call in question, to some extent, the propriety of their former practice.

Finally, in deciding upon the propriety or impropriety of a surgical operation, the mortality of the operation, and the mortality of the disease when left to itself, have both to be taken into the account; and if after a proper estimate of both, one single case can be adduced, or there is but one per cent. in favor of an operation, the measure, in our humble opinion, is justifiable.

In conclusion we may state, that we are conscious of having added nothing by this report to our present stock of knowledge. At this we have not aimed. We have some matter on hand that has not yet seen the light, and that might have been crowded under the head of "contributions," but we have not thought proper to insert it. Our opinions were that we might content ourselves with a brief review of some of the more important points of surgical science, in order to see how they are understood, and the practical bearing of this upon the profession. There is often as much to be gained by cultivating an old field, as by advancing into new territory.

The progress of surgery, considering the date of its true origin, has been rapid, we might almost say triumphant. It has kept pace in modern times with civilization, with the arts and sciences; and is, without any doubt, destined to reach a position in the future that will connect it with departments of human knowledge that are regarded as comparatively exact. Our age has developed some totally new operations. Besides, the debris of the ancients has been looked into, and old operations that were meritorious, but neglected, have been revived.

The most valuable improvements, seem not confined to any particular country. From all parts of the world where our kind of cizilization obtains, more or less is constantly being produced; and we should do injustice to our country not to recognize her agency in contributing some of the most important inventions. We have

had no disposition to be censorious in what we have said of surgeons. We have alluded to their mistakes for no other purpose than that others might not be similarly victimized. From the best motives, they have got, so far as success is concerned, the profession into a false position, and we have done what we could, in the meagre limits of a report, to bring the fact to public attention. The profession and the public are more interested in what *can be done* than in what any *one professes to be able to do.*

We have, as will be observed, gathered the materials of our report from a number of sources, most of which have been indicated. In the matter of general statistics, a work of great labor and care, the authors are noticed by name.

A Retrospect—Paris in 1856. By W. L. McMillen, M. D., Columbus, Ohio.

Recollections of past events, when of a profitable character, are always happy, and the pleasure thus derived is much enhanced by revealing those remembrances to others, in order that they may participate with us in this means of enjoyment. In company with those who may see proper to follow me through a few pages, I propose passing in short review a life of some months in Paris, hoping to derive such advantage therefrom, as recollections of "men and things," in a place of that character would very naturally afford.

The better to benefit any one who, like myself, may visit Paris, not only entirely ignorant of the city and its people, but also of the language, and the best manner of at once setting about some systematic course for the profitable employment of time, I will first enumerate some of the embarrassments incident to such a situation, and the best means of overcoming them.

Perhaps nothing is more prominently felt by a person who, for the first time, sees a foreign city, than the unsatisfactory nature of those general ideas, which every one derives from reading books of travel, detailing the experience of others. We all see objects through different mediums—ordinarily through the coloring which our business or profession imparts to them—and the medical man upon enter-

ing the city of Paris, for instance, for the first time, and failing to see any immediate evidence of the existence of the *Hôtel Dieu, La Charite* or *Du Midi;* or to be nudged by the arm and warned of the approach of Cruveilhier, or Andral, or Velpeau, or of the fact that Ambroise Paré, or Lawrence, or Dupuytren, has trod the ground on which he stands, feels a sense of disappointment, as if the foundations of his faith were giving way, and the place after all were not the "Athens of medical science" it had been pictured. Nowhere are to be seen evidences of the existence of those objects, which until the present moment had always, to his mind, constituted the towering features of the place. All around are in active play those incongrous elements which constitute the ebbing and flowing life of a great city, and in the presence of so much that is novel, former ideas and present prospects dissolve into vague uncertainties. If in his embarrassment, he seeks, as he supposes, information of some person or thing, known and read of all men, a significant shrug of the shoulders and a probable *je ne sais vien*, serve only to increase his dilemma, and render more painful the uncertainty of what is best to do next towards furthering his object. Under such circumstances, the best course for a total stranger to pursue, will be to seek out some initiated countryman and from him learn how "to go about doing things." The names and residence of such he will always be able to find at the office of the American Minister, and like Americans the world over, when once seen and properly informed of the necessities of their visitor, they will willingly impart whatever desired information may be in their possession. Advice will ordinarily be given to take rooms in the vicinity of some one or more of the general hospitals, and to occupy the major portion of the first two or three months in acquiring a practical knowledge of the language. This will usually be the best course to pursue, and in order to facilitate the accomplishment of this purpose, instead of devoting his whole time to books and teachers of languages, the student will do well to follow punctually and regularly every morning the *service* and clinical lecture of some one or more of the Professors. Even though unable to understand a single word that may be said, this course will prove advantageous, for, in addition to the opportunities it affords for valuable acquisitions by mere observation and indpendent investigations, it will be found a valuable means of "educating the ear," a matter of no secondary importance in acquiring a new language. Then, too, in the wards of the large Parisian hospitals

the physician is constantly meeting with representatives of his profession from all parts of the world, and intercourse of this kind is valuable in establishing cosmopolitan for sectional views.

A little further acquaintance with the place will reveal the fact that the great difficulty peculiar to Paris is *un embarras de richesse* in all that pertains to medical science. As the crystal jets which spring from beautiful fountains, in all quarters of the city, sparkling like gems in the rays of the setting sun, and imparting to all who come within their influence a scene of cool and grateful relief, are supplied from the ever-flowing Seine; so her fountains of knowledge, are supplied from a liberal and unfailing source, radiating their grateful blessings throughout a circuit whose a limit is the uttermost parts of the earth.

This profusion begets the necessity of choosing from the mass such portions as may be needed to supply the more pressing wants of the student, and here every one will be materially benefitted by having determined before leaving home the particular department of medicine he intends to investigate, or the specialty he wishes to prosecute. Unless a man has years to spend abroad, an attempt to take advantage of all opportunities for information in every branch of his profession, would lead to a dissipation of time and the accomplishment of no good end. A wise and judicious course, predicated upon the wants and designs of the individual, should be marked out and rigidly adhered to under all circumstances.

As but little is probably known among the readers of the Journal about the organization and administration of those medical charities which reflect such marked credit upon the French Capital, I propose giving a short account of some of the more prominent ones, together with the men at present connected with them, in the course of which the advantages they afford the medical student, referred to above, will, in part, manifest themselves. They all come under the head of

Charitable Institutions.

These are of two distinct classes, namely: *hospitals* and *hospices*. With the nature of the former all are acquainted. The latter are establishments where infirm or aged persons, deprived of the means of existence are lodged and supported. A hospital differs in consequence from a hospice in being only a temporary retreat where gratuitous care is given the sick, but which should only contain patients susceptible of cure: thus we say *l'hôpital de la Charite, l'hospice de la*

Salpétrière the former being a general hospital, the latter an asylum for the insane. Both terms are derived from the latin *hospitium*, which among the Romans signified a house where gratuitous hospitality was received.

At an early period in the history of Paris numerous establishments for the relief of suffering humanity were founded. They were, however, badly managed, their purposes perverted, their revenues applied to other objects, and as a consequence the suffering wretchedness and mortality of their inmates rendered almost beyond credence. A short time before the revolution of 1789, Louis XVI. caused the Academy of Sciences to make an investigation into the condition of the Hôtel Dieu. Their report showing its deplorable condition, a plan for its amelioration, and an order for the construction of several new hospitals was the result.

This project gave great satisfaction to all classes, but owing to the unsettled state of the times and the profligacy of the Minister Colonne, large sums of money which had been raised for carrying it into effect were squandered. Even the terrible events of the revolution which soon followed, did not wipe out all remembrance of the above plan or diminish the general desire to see it executed. In 1793, by decree, the convention converted the convents and other buildings, which had become national property, to hospital uses. By subsequent decrees, their general management was vested in sixteen members of the National Convention, two new hospitals established and the beds in those already existing considerably augmented. In 1849, everything relating to public assistance was placed under a special administration, called *Administration Générale de l'Assistance Publique à Paris.* It is under the control of the Minister of the Interior, and is managed by a director and a *conseil de surveillance*, consisting of twenty members, and presided over by the prefects of the Seine and of police.

The civil hospitals of Paris are divided into two classes: 1st. General Hospital, open for such diseases as are not specially provided for; 2d. Special Hospitals, which are devoted to the treatment of particular diseases, as cutaneous, syphilitic, &c. Of these two kind, together with the hosprices, there are some 26 under the control of the *Administration Generale.* The *Conseil de Surveillance* is administrative in character, and regulates all the financial affairs of the different institutions. In addition to this there is a *Bureau Central d' Admission*, which consists of a Board of 12 physicians and 6 surgeons. From this body hospital surgeons and physicians are se-

lected, and they issue cards of admission to patients, indicating the particular hospital he is to occupy according to the nature of his complaint. Patients are also admitted in cases of emergency by the medical officer of the day at any of the hospitals, and also by the chief physicians and surgeons at their morning *consultations*. The Board also give advice gratuitous to indigent families, and twice each week children are vaccinated at their office. This operation is performed once every week at all the *mairies* of the city, and to encourage parents to submit their children to this useful practice, 3 francs are paid for each child, and children not having been vaccinated are excluded from the free schools.

The following extract showing the statistical condition of the hospitals of Paris for the year ending December 31st, 1855, may not be without interest:

"The total number of patients admitted was 87,105, viz: 62,616 medical, and 24,489 surgical cases. The number of patients cured was 77,758, viz: 54,405 medical, and 23,253 surgical cases; the total number of deaths was 9,233, viz: 8,049 medical, and 1,184 surgical cases. The *Hospices* and *Maisons de Retraite*, received 12,490 individuals; the exits were 10,597, and the deaths 1,998. The average number of days passed in the general and special hospitals by each patient was 23.96 days; the average for men was 23.85; for women, 24.23; for boys 22.51; and for girls, 24.80. The mortality in the general hospitals averaged for medical cases, 1 in 7.34; for surgical cases, 1 in 19; in the special hospitals, for medical cases, 1 in 10.06; for surgical cases 1 in 25.98. The greatest number of beds occupied at any one time, during the year, was, for the general and special hospitals, in March and December; the smallest number in July and August.

"The financial condition of the hospitals and charitable institutions dependent on the General Administration was as follows: Total receipts, all deductions and allowances made, 14,021,539 francs. Total expenditures, allowances and additions included, 13,938,110 francs. The average cost of each patient per diem was: General Hospitals 1 fr. 85c.; Special Hospitals, 1 fr. 88c. All public places of amusement pay a tax of 8 per cent. on their receipts towards the support of the hospitals. A heavy tax for their support is also levied on every piece of ground purchased for the purpose of burial in the cemeteries. Private munificence contributes largely to their maintenance."

GENERAL HOSPITALS.

Hôtel Dieu.—Nothing can exceed the feeling of interest with which the medical visitor approaches this venerable temple of his profession. Antiquity crowns it with a peculiar charm, whilst private charity and Imperial bounty have endowed it with such dimensions as to render it a harmonious neighbor of that other glorious *reliqæ* of the olden time, *Nôtre Dame.* Situated upon the *ile de la cité*, they occupy a central and convenient position. It is the oldest hospital in Paris, and is supposed to have been founded by St. Laudry, bishop of Paris, sometime in the 7th century. Philip Augustus, its earliest royal benefactor, called it *Maison de Dieu*, and in 1789 it bore the appropriate title of *Hôpital d' Humanité.* St. Louis, Henry IV, and other Kings have conferred special benefits upon it. A portion of the hospital occupies the main-land side of the river, and is connected with the chief building upon the island by means of a covered bridge and tunnel. On each side of the hall, just within the main entrance, are two marble statues, one of Monthyon, the philanthropist, and a great benefactor of the hospitals of Paris; the other of St. Vincent de Paule, in one arm holding an infant, and stooping to take up another. Portraits of Dupuytren, Desault, Bichat, and others, decorate the walls. A beautiful marble monument also perpetuates the memory of the early dead, but gifted Bichat.

The wards of this hospital are very long, dark, and but poorly ventilated, in consequence of which, together with a seeming infection of the entire establishment, from having been so long used for hospital purposes, the bills of mortality are very large, and diseases of an epidemic character rendered almost beyond control. Only this last spring in the lying-in-ward an epidemic of puerperal fever made its appearance, and so baffled the extraordinary efforts of the physician to arrest it that the *Salle* had to be closed, not, however, before a number of lives had been sacrificed. So great is this evil that it is in contemplation to tear down the present buildings as soon as they can be spared, and erect larger and better adapted rooms in their stead. The total number of beds is 900, and patients of all kinds, medical and surgical, are admitted.

The most prominent men, and the only clinical Professors connected with the hospital at the present day are M. M. Jobert and Trousseau, the former of Surgery, the latter of Medicine. M. Jobert has acquired something of a reputation by his *Traité de chirurgie plastique*, an elaborate and very valuable work; also by his

dexterity in all operations upon the genito-urinary organs. As a clinical lecturer, and accomplished surgeon, however, he is very much inferior to several other members of the faculty, as the empty benches upon his mornings amply attest. How he came to be elevated over the heads of better men to fill the "post of honor," is an enigma to all, until informed of the fact that he is the chosen surgeon of the Emperor, and that in the Parisian world, as everywhere, "kissing goes by favor."

M. Trousseau is deservedly one of the most popular teachers in the city. Possessed of a comprehensive and analytic mind, he also has the happy faculty of presenting his subject in a clear didactic style, clothed in language at once elegant, and to the foreign student easily understood.

Hôpital de la Charité.—This establishment was founded in the early part of the seventeenth century, by Marie de Médicis, and was originally intended for a community of *Frères de la Charité*, which consisted of surgeons and apothecaries, who not only afforded medicinal aid to the sick, but also administered to their spiritual wants. The buildings are large and airy, and owing to extensive repairs, which are still going on, in a good condition. The hospital contains about 500 beds, and the same diseases are treated as at the Hôtel Dieu. The average number of patients admitted per annum is 10,700; and the mortality 1 in 11. For many years past it has been distinguished as the scene of the labors of Velpeau, Cruveilhier, Andral, Piorry, and others, who have shed a peculiar glory upon the medical profession of Paris.

Mr. Velpeau for a long time has been the Apollo of surgery in Paris, and is perhaps better known throughout this country than any other French author. He is, however, growing old, and younger men are fast transplanting him in that kind of popular favor which secures crowded benches. Personally, too, he fails to impress favorably, for, added to a penurious nature, he has a cold, haughty air peculiarly freezing in effect, and in his intercourse with strangers displays but little of that suaviter-in-modo, which ordinarily characterizes the gentleman. As a teacher, however, he occupies a place in the first rank. In addition to his long and valuable experience as a surgeon, he is peculiarly endowed in semeiology possessing a remarkable facility and clearness in this department of science. His life affords another of the numerous examples, of how much a man, who is desirous of serving his day and generation, can accomplish under all the disadvantages which obscure birth and poverty entail. Born

and raised in an humble sphere, by his own inherent energy and will, he has conquered a prominent position among the best men of his day.

M. Cruveilheir has been long and favorably known as the Professor of Path. Anat. in the University of Paris, and the author of a fine work upon that subject. He is a little, old comical looking man, but to those who follow his service, communicative and instructive.

[*To be continued.*]

ART. IV.—*Diphtheritis.* By W. WALLACE SHEPHERD, of Samantha, Ohio.

PROF. DAWSON: Permit me, through the medium of your Journal, to offer a few remarks on the subject of Diphtheritis. This disease has prevailed quite extensively (among children) in this neighborhood during the last year; it generally makes its appearance in a very insidious manner, and seldom attracts attention in the early stage, the child rarely discontinuing its ordinary sports, only a trifling sense of soreness is experienced in the fauces, with little, if any, febrile excitement.

From the commencement of the attack the mucous membrane of the fauces is of a vivid red color, accompanied with very little, if any, pain or uneasiness; the bowels are generally constipated; the tongue is red at the tip and edges, and covered on its surface with a thin white coat, through which large red papillæ protrude. A peculiar pointed appearance of the tongue is almost always present, and is a valuable aid in the diagnosis of the disease. The vivid redness of the fauces may continue for a period varying from two to forty-eight hours before the exudation commences; at this period the surface exhibits small irregular, gray colored patches closely adherent to the surface of the inflamed mucous membrane, and generally scattered over the whole of the posterior fauces; the mucous membrane surrounding the patches is reddened and slightly edematous; there is seldom any swelling of the tonsils, nor have I observed in but one case any difficulty of swallowing; sometimes even in the early stage there is complete aphonia. In the most severe cases the patches become rapidly confluent, and cover the whole fauces. The disposition to exduation travels rapidly downwards, and when the

larynx and trachea become lined with the pseudo membranous exudation, the result has been in every case which came within my observation unfavorable, the little patient perishing asphyxiated as in croup.

But in one, "post mortem" examination was made in this neighborhood, and the larynx and trachea were found lined with a thick, yellow and exceedingly tenacious plastic exudation, firmly attached to the mucous membrane.

In the latter stage of an unfavorable case there is often a fœtid, acrid discharge from the mouth and nostrils, sometimes mixed with dark colored blood, which in almost every case causes great irritability of the stomach and diarrhœa; "both these results are ascribable to the acrimony of the liquid secreted in the fauces, more or less of which is swallowed."

Diphtheritis may be confounded with pseudo-membranous croup, but the following signs will serve to distinguish the two diseases. Croup does not make its appearance in such an insidious manner as does this disease; in diphtheritis the exudation may *always* be observed in the fauces a considerable time before it invades the larynx, while in croup the exudation commences in the larynx, and is never associated with those malignant symptoms which frequently present themselves in this disease.

The appearance of the tongue may also be taken into consideration, for in croup we *never* have the peculiar pointed and indented tongue which is a pathognomonic sign of this disease.

The diphtheritic exudation differs very materially from that of thrush; in the latter the exudation makes its appearance in distinct, well-defined white specks, or curd-like vesicles which subsequently coalesce, and may be readily removed with the finger nail, without destroying the integrity of the mucous membrane, or causing the least extravasation of the blood. The former makes its appearance in ragged and irregularly circumscribed patches, and adheres very strongly to the mucous membrane underneath, so that it cannot be detached without causing slight hemorrhage from the denuded part.

The causes of this disease are exceedingly obscure. "Among the predisposing causes, age appears to have the greatest influence." The disease is not positively confined to any period of life, but persons over twelve or fourteen years of age are rarely affected; the

majority of the cases I have seen were between three and nine years of age. I never knew an adult to have the disease. Sex appears to exert no palpable influence. I have seen eleven girls and ten boys have the disease. I have not the least doubt but what it is epidemic and contagious. I have known it to attack eight children out of nine in a single family, without extending to others in the immediate vicinity.

The duration of the disease as it occurred in this neighborhood was from four days to three weeks.

The prognosis is favorable in good constitutions so long as the exudation evinces no disposition to invade the larynx, or malignant and typhoid symptoms do not supervene.

Treatment.—The following course of treatment was pursued in the epidemic aforesaid with marked success. In the first place a brisk mercurial cathartic should be administered. (Hyd. Submur. et Rhei āā gr. v, or Hyd. Submur. gr viij et Soda Bicarb gr. xij.) Venesection appears to exert little if any controlling influence, "at least it does not obviate the tendency to the plastic effusion." I regard the mercurial preparations as the "sheet anchor," and believe them to be peculiarly applicable, not only because children bear very large quantities with impunity, but also for the purpose of diminishing the quantity of fibrin and albumen in the blood, and thereby preventing the formation of false membrane, or promoting the absorption or separation of that already formed, and to favor its expulsion from the larynx. Alkalis may be tried for the same purpose; of these preparations I prefer the Bicarbonate of Soda.

After the larynx becomes involved expectorants should be freely given (along with the mercurials and alkalis) to promote the separation of false membrane. Of these I prefer the Syr-scill comp., or the following preparation:

℞. Tict. Lobelia.
Tinct. Opii Camph.
Syr. Scill comp. āāfʒj.

M. Dose, a teaspoonful "*pro re nata.*"

Nitrate of silver, dissolved in about six parts of water, should be freely applied to the fauces several times a day; indeed, I consider its use indispensable to the safety of the patient. Counter irritants

should be freely used upon the throat and upper part of the sternum. The following has been found to be an excellent application.

℞. Ol. Lavandulæ f℥ss.
Etheris f℥iij.
Alcoholis f℥i.
Tinct. Opii f℥ij. M.

The throat should be kept well enveloped in flannel saturated either with the above or with camphor dissolved in the oil of turpentine.

In all instances the patient should be bathed morning and evening in tepid salt water, and afterwards rubbed perfectly dry with a piece of flannel or a coarse towel.

Emetics are rarely admissible, but may be tried as a last resort to expel the false membrane from the larynx. Zinci Sulphas or Cupri Sulphus are the most appropriate, as they do not affect the general system to such an extent as other articles of the class.

PART SECOND.

AMERICAN AND FOREIGN INTELLIGENCE.

Death of Marshall Hall.—Death, that most unsparing of tyrants, has exacted from the greatest physiologist of the age the last debt of nature. Slowly, surely, and relentlessly, disease has been undermining the earthly tabernacle of a mind which, for vast powers, high purposes, and indomitable energy, has found no superior in its native land in the present half-century. On Tuesday last, the 11th inst., Dr. Marshall Hall died at Brighton, aged 67 years.

It is impossible to record this melancholy event without feelings of the deepest sorrow. The loss is one which all must feel most keenly who have a reverence for high endeavors, for earnest devotion to science, and for all the sterling qualities which can adorn a man. Science has lost the worthiest of her sons, medicine has lost a great master, and philosophy a great thinker. The clear and vivid intellect of this celebrated man has steadily and successfully risen superior to the depressing influences of disease for the last fifteen years. Even during the present year, when confined to one room, his chamber has been a scene of intellectual activity. Physical de-

bility, which robs most men of their power of thinking and reasoning, had not dimmed the brightness of his wonderful mind. Clear and penetrating, and impelled by a wide philanthropy, the last contribution of Dr. Marshall Hall to science has been a pre-eminently useful one to the cause of humanity. It is thus that great men should die. There is a grandeur in such a life-end, to which the mere external grace of a falling Cæsar is not for one moment comparable.

Dr. Marshall Hall was born at Bashford, in Nottinghamshire, in the year 1790. His father was a manufacturer, and a man of no small capacity and information, and had the merit of being the first person to perceive the value of chlorine as a decolorizing agent, and applying it on a large scale. The gifts of intellect were bestowed with no sparing hand in this family. The father and two sons fully vindicated their claims to high intellectual endowments. But Dr. Marshall Hall has eclipsed his less brilliant relations. What in them was acumen and sagacity, was developed in him into genius. There was in him that rapid and far-searching intellectual vision which travels into regions far beyond the common ken of man, visible and appreciable only to the eagle glance of an almost prescient inquirer.

The history of such a man cannot fail to present numerous points of interest. The investigation of the rise and progress of a mind which has ever been foremost in the ranks of science, must afford many good and useful lessons. No fitful glare can be recognized in this life—no charlatanic attempt to pluck a crown of laurels which was not deserved; but a stern, conscientious, and faithful continuance of patient scientific toil, and the solid reward of a vast reputation.

The first step in Dr. Marshall Hall's education was taken at Nottingham Academy, then conducted by the Rev. J. Blanchard. From this school he went to Newark, where he acquired some elementary medical and chemical knowledge. But the first salient point in the life of Dr. Marshall Hall was his matriculation at Edinburgh University, in the year 1809. For a vigorous and apt mind, no better school could then have been chosen. In the present day it is hardly possible to realize the enthusiasm which inspired Edinburgh at that time. There were giants in those days. Enthusiasm, indeed, is almost too tame a word. There was a furor, an excitement produced by the united influence of a complete galaxy of talent. It was impossible but that such men as Cullen, Home, Rutherford, Gregory, Hamilton, Bell and Barclay, should kindle in the ardent minds of a vast concourse of students a flame which should burn with answering brightness to their own. From the school of that time we know many great men have sprung. It is unnecessary to particularize names which are "familiar in our mouths as household words." In that genial atmosphere, then, did Marshall Hall first imbibe that enthusiastic love of science which has been his most marked characteristic. With youthful impetuosity he plunged into the study of chemistry. Not content with merely assimilating the accepted doctrines of the science, he boldly endeavored to push its boundaries farther. With wonderful power of generalization for so young a man,

and with such small materials as then existed for the purpose, Dr. Marshall Hall pointed out that there was a grand distinction between all chemical bodies, which ruled their chemical affinities. He showed that this distinction was the presence or absence of oxygen. That oxygen compounds combined with oxygen compounds, and compounds not containing oxygen with compounds similarly devoid of that element; and that the two classes of compounds did not combine together. He believed that this general law would elucidate other chemical doctrines, and might prove valuable in the prosecution of still more recondite principles. But a mind of such soaring aspirations was not likely to confine itself even to such a comparatively wide field as chemistry. The vast domain of medicine was before our student, rich in unexplored regions, abounding in all that could excite his eager spirit of inquiry, and reward his love of definite results. It was exactly at this period in the history of modern medicine that physicians were taking stock, as it were, of their old principles. Morbid anatomy, pursued in close connection with clinical medicine, was showing the defects of diagnosis. With the sagacious eye of one who was capable of seeing that the great necessity of the day was a science of diagnosis, Dr. Marshall Hall threw himself into the prosecution of this immensely important department of medicine at once. Here again we find fresh evidence of his eminently progressive spirit. No mere systematizing of what other men had gathered, but an original and comprehensive treatise resulted from the labors of his student life and early years in the profession.

In 1812 Marshall Hall took his degree of M.D., and shortly afterwards was appointed to the much-coveted post of house-physician, under Drs. Hamilton and Spens, at the Royal Infirmary of Edinburgh. In the following year we find Dr. Hall lecturing on the Principles of Diagnosis to a class, amongst whom were Dr. Robert Lee and Professor Grant. It was from this course of lectures that the treatise on Diagnosis, which was first published in 1817, took its origin.

In 1814 Dr. Marshall Hall left Edinburgh, after a residence there of five years. Great as was the individuality of this remarkable man, we cannot but point out that he was reared in a great school, taught by great men, and infected with an enthusiasm which pervaded, in some degree, all who came within its magical circle. Before entering upon his career as a private practitioner, Dr. Hall determined to visit some of the continental schools. We find him, therefore, shortly after his departure, successively at Paris, Berlin, and Gottingen. The journey was made partly on foot, and armed. At Gottingen Dr. Hall became acquainted with Blumenbach.

In 1815, Dr. Marshall Hall settled at Nottingham as a physician, and he speedily acquired no small reputation and practice. After a time, the appointment of physician to the General Hospital there was conferred upon him, and in that sphere he labored until his removal to London, about ten years after his first settlement at Nottingham. Of his work on Diagnosis it is almost unnecessary for us now to speak in terms of praise. Comprehensive, lucid, exact and reliable,

this work has, in the main, stood the test of forty years' trial. A better has not been produced. It was at this period of his career, too, that Dr. Hall made his researches into the effects of the loss of blood, the result of which was embodied in a paper read before the Royal Medical and Chirurgical Society in 1824. This paper and another in 1832, detailing Dr. Hall's "Experiments on the Loss of Blood," were published in the "Transactions of the Royal Medical and Chirurgical Society." It is hardly possible to overrate the importance of these inquiries. They revolutionized the whole practice of medicine. A new light broke in upon the medical world. A distinction, not recognized before, was drawn between inflammation and irritation. It was pointed out that delirium and excitement were by no means necessarily declaratory of cerebral or meningeal inflammation, or even congestion. Loss of blood was shown to be at the root of much that had passed before for various grades of inflammation. Practical rules were educed both for treatment and diagnosis. It was shown that active inflammation produced a tolerance of bleeding from a free opening in the upright posture; and the rare merit of supplying at once a rule of treatment and a rule of diagnosis was Dr. Marshall Hall's. Other works came forth from his pen about this time, for his mind was teeming with ideas, and his activity as an observer was unparalleled. It is hardly possible to enumerate all, but in 1827 came the "Commentaries upon various Diseases peculiar to Females"—a work which may still be consulted with advantage.

It was in 1826, that Dr. Marshall Hall sought this great metropolis as the umbilicus of the world. So active and earnest a mind could not find enough to satisfy its eager cravings in a provincial town. It was here, in this mighty city, that he determined to measure himself again with numerous competitors, and to win, if possible, all the honor and all the rewards that fortune can give to those who woo her stoutly. The mind of this great man was essentially metropolitan and liberal. A fair field and no favor, and victory to the strongest, were the characteristics of his mind.

The next onward step in Dr. Marshall Hall's career was a series of researches into the circulation of the blood in the minute vessels of the batrachia. A great step in physiology resulted from these. It was shown that the capillary vessels, properly so-called, are distinct absolutely, both in structure and function, from the smallest arteries or veins; that the capillaries, or *methæmata*, are the vessels in which the nutritive changes in the economy are carried on.

But the great source of Dr. Marshall Hall's honor, the basis upon which his fame must rest in all time to come, was yet undeveloped. His paramount claims to the admiration of his contemporaries and of posterity consists in his discoveries concerning the nervous system. Like all really important discoveries in natural science, those of Dr. Marshall Hall have had great practical effects. The soundest theory has been shown to be the best foundation for practice. That stupid heresy, that there is a vital distinction between the practical and theoretical man, was never more completely disproved than in the case

of Marshall Hall. But we must endeavor to trace the progress of his researches. While engaged on the Essay on the Circulation of the Blood, it happened that a triton was decapitated. The headless body was divided into three portions: one consisted of the anterior extremities, another of the posterior, and a third of the tail. On irritating the last with a probe, it moved and coiled upwards; and similar phenomena occurred with the other segments of the body. Here, then, was a great question. Whence came that motor power? To set at rest that question, to solve that problem, has been the great labor of Dr. Marshall Hall's life.

The establishment of the reflex functions of this spinal cord; in short, the whole of the excito-motor physiology of the nervous system is the sole work of Dr. Marshall Hall. And not only this, but he has shown that there are in reality THREE great classes into which the various parts of the nervous system resolve themselves; the cerebral, or sentient-voluntary; the true spinal, or excito-motor; and the ganglionic. This was the real unraveling of that perplexed and tangled web which none had before been able to accomplish. The true idea of a nervous center could never be said to have existed before the time of Marshall Hall. The ideas of centric and eccentric action, of reflexion, &c., so necessary to the comprehension of nerve-physiology, were unknown before the labors of this great discoverer. But these physiological discoveries were not mere barren facts. How rich a practical fund of therapeutical measures naturally follows the physiology and pathology of the excito-motor system, every well-informed physician can testify. Two departments of medical practice had gained incalculably. The success of Dr. Marshall Hall in the treatment of nervous diseases was almost entirely the result of a rigid application of his own physiological discoveries to their pathology and therapeutics. Obstetricians have found their art elevated more than any other branch of medicine. In the place of uncertain and empirical rules, there are now definite and scientific principles upon which to fall back, with the unhesitating assurance that they will stand in good stead. The most complicated of all physiological acts, viz: the act of parturition, has, by the aid of the excito-motor system, been unraveled and reduced to beautiful harmony, if not simplicity. In like manner, many of the diseases of pregnancy are explained and illuminated by the same physiological knowledge. Innumerable symptoms of other diseases are rendered intelligible and rational, which before were obscure and empirical. But to follow out the influence of Dr. Marshall Hall's discoveries through their numerous and important ramifications would be almost to write a volume on the principles of medicine. It is impossible to say when we shall cease to find some new and important application of his discoveries to the great art of healing.

We cannot pass by this period of Dr. Marshall Hall's life without remarking upon the disgraceful treatment he received from the Royal Society. The days of persecution had happily passed by, but the day of dull obstructiveness still remained. The Royal Society thought Dr. Hall's memoir "On the True Spinal Marrow and the

Excito-Motor System of Nerves," unworthy of publication! So much for the acumen of this Society. A very different verdict has, however, been given since by the great body of scientific men; and the Society, which formerly received this great man's contribution coldly, now mourns the loss of its brightest and most illustrious member.

Since the promulgation of his researches upon the nervous system, Dr. Marshall Hall has been principally occupied with extending, applying, and developing them in every possible direction. The admirable success with which he indoctrinated the profession at large with his views must be attributed as well to his native lucidity as to their inherent truth.

During the time of Palmer's trial, it occurred to Dr. Hall to institute a physiological test for the recognition of strichnia. As if to show the absolute correctness of his views, and how unlimited were the number and nature of the scrutinies they would bear, he found that a frog, immersed in water containing the $\frac{1}{1000}$ part of a grain of strychnia, would, in process of time, be thrown into tetanic convulsions. For the details of these experiments we must refer to *The Lancet* of last year. The physiological test was found to be far more delicate than the chemical. Here was an instance of sagacity and precision of thought which would have done credit to any man in the flower of his age.

The last and crowning effort of Dr. Marshall Hall in the cause of science and humanity has been his discovery of what is now universally known as the "Marshall Hall Method" of restoring asphyxiated persons. How completely and irrefragably he has proved the inutility and danger of the practices hitherto in vogue for the resuscitation of asphyxiated persons! Space prevents us from going into the theoretical details of Dr. Marshall Hall's method; but our columns have, for any time these last six months, contained overwhelming proofs of its *truth* and adaptation to practice. It is pleasing to find that this last labor of a great mind has been a labor of love, something added to the stock of human happiness, something taken away from the bitterness of life. It is singular enough that in the very place where Marshall Hall has drawn his last breath, two cases have lately occurred illustrating the superiority of the "Marshall Hall Method" over the empiracle rules of the Royal Humane Society. In one case of drowning the warm bath was administered; in another the "Marshall Hall Method" was resorted to; in the first case death was the result; in the second, restoration to life. It is also remarkable that in this number of our journal should be recorded three more examples, illustrative of the successful application of the "Marshall Hall Method" of treatment. It is curious, too, that one of them should have occurred at Nottingham.

In the practice of his profession, Dr. Marshall Hall was very successful. He linked himself early and resolutely to a great subject, and rose into fame upon his development of it. He realized an ample fortune as the reward of a life of unremitting toil. We do not mean to imply that competency was hardly earned under such conditions.

Such a man would have been less than happy in a different sphere. Labor was to his restless and indomitable spirit a necessity. Even now, when we are recording the death of this illustrious and lamented physician, there is a volume in the press—a recent effort of his prolific mind; and until within two months before his dissolution, the mental energies of this extraordinary man were engaged in preparing for publication, in *The Lancet*, a series of papers, entitled, "The Complete Physiology of the Nervous System."

It is somewhat remarkable that Dr. Marshall Hall never held the office of physician in an hospital in London. He was only physician to a dispensary for a short time. He lectured at the Aldergate-street and Webb-street School of Medicine, and also at St. Thomas's Hospital Medical School. He was a candidate for the Professorship of Medicine at University College upon one occasion; but owing it is believed, to some improper influences, matters assumed such an aspect as to induce Dr. Hall to retire from the field.

We have thus far considered Dr. Hall as a man of science. In other relations of life he was equally deserving of our highest respect. As a politician, he was liberal in the highest degree. He was a strictly moral man, and was deeply imbued with a sense of the obligation of a *practical* cultivation of religion. That which he thought right to do, he *did*, with unswerving honesty and courage. All subterfuge, trickery, quackery and guile were utterly foreign to his nature. So simple and childlike was he in disposition, as hardly to be able to imagine in others the guile which had no home in his own breast. He was a kind husband, a most indulgent father, and a faithful friend. He married, in 1829, Charlotte, second daughter of Valentine Green, Esq., of Normanton-le-Heath, Leicestershire. Mrs. Marshall Hall's maternal grandfather was M. P. for Shaftesbury, and son of Dr. Cromwell Mortimer, physician to the prince of Wales, father of George III. Throughout the protracted illness of Dr. Marshall Hall, the assiduous, devoted, and unremetting attentions of an affectionate wife were probably never surpassed. This testimony is due from personal observation of fact. The deceased has left one son, who has relinquished the profession for the rural life of a country gentleman.

We must now close our notice of one over whose name we would fain linger. Melancholy as it is to say he *was* amongst us, our sorrow is stayed by the reflection that he did not live in vain. All that a grateful profession has to give to his memory will be given. We shall still think of him with affectionate respect as a Father in medicine, but as a child in the purity and simplicity of his mind. Though no title has adorned the name of the great Marshall Hall, we who are left behind will esteem him as one who would have graced rather than have been graced by honors however exalted. The *title*, which he preferred beyond all others was that of the English physiologist.

The mortal remains of this distinguished man were, on Wednesday last, removed from Brighton to Nottingham, where; we believe, a post-mortem examination has been made by his brother-in-law, Mr. Higginbottom, his nephew, Mr. Higginbottom, Jr, and Dr. Ransom,

physician to the Nottingham General Hospital. It is believed that the death of Dr. Marshall Hall was caused by exhaustion produced by a stricture of the œsophagus of many years' standing, accompanied latterly, it was considered by many eminent surgeons, with malignant ulceration of the part. Dr. Alfred Hall, of the Old Steyne, Brighton, was one of the chief medical attendants of the deceased in his last illness. Sir Benjamin Brodie had long since pronounced the malady from which Dr. Marshall Hall was suffering to afford no hope of the application of any permanent remedy.—*London Lancet.*

Etherization in Paris.

The influence exercised by the French Academy of Medicine is far greater than that possessed by any of our scattered societies for the discussion of medical matters. This gives proportionate interest to those elaborate debates on important and momentous topics which from time to time occupy the attention of the academy, a whole month being sometimes devoted to the thorough investigation of a single subject. Last week was concluded a long and spirited debate, which had extended over several *seances*, on the important subject of administering anæsthetics, or, as our French neighbors call it, etherization. M. Devergie, whose name is so well known in connection with medical jurisprudence, had some qualms of conscience in regard to the responsibility incurred by medical men in cases of death during the administration of chloroform. These he submitted to the consideration of the academy. Evidently believing that asphyxis is the general cause of death in such cases, he urged the absolute necessity of employing an apparatus for inhalation which should provide a definite admixture of air with the vapor; and this last question became the most prominent one in the debate. M. Velpeau stated that he had administered chloroform three or four thousand times in ten years without an accident; and M. Huguet mentioned that only one medical man in Paris employed any mechanical contrivance for inhalation. The general opinion of the academy seemed decidedly opposed to the deductions of M. Devergie as to the general cause of death, the advisability of using an apparatus, the necessity of definitely restricting the dose administered, and the propriety of rendering the medical man responsible in case of accident. The debate was finally closed by the academy giving its assent to the following resolution, proposed, singularly enough, by M. Devergie himself:—"The academy declares that, in the present state of science, etherization may be practiced with or without apparatus; and that the choice of means should be left to the judgment of the physician or surgeon."—*London Lancet.*

Population of Russia.

The Moniteur de l'Armee gives the following as the results of the census of the Russian empire taken by order of the emperor at the time of his accession to the throne: "The total number of the population amounts to 67,000,000, the principal elements of which give results unknown to the rest of Europe. The clergy of the Russian church stand for the enormous number of 510,000; that of the tolerated creeds, 35,000; the hereditary nobility, 155,000; the petty bourgeoisie, including discharged soldiers, 425,000; foreigners residing temporarily, 40,000; different bodies of Cossacks, colonized on the Oural, the Don, the Wolga, the Black sea, the Baikal, the Baschkirs and the irregular Kalmucks, 2,000,000; the population of the towns, the middle and lower classes, 5,000,000; the population of the country parts, 45,000,000; the wandering tribes, 500.000; the inhabitants of the trans-Caucasian possessions, 1,400,000; the kingdom of Poland, 4,200,000; the grand duchy of Finland, 1,400,000; and the Russian colonies in America, 71,000. At the accession of the Emperor Nicholas, the census then taken only gave a population of 51,000,000. This large increase in the space of thirty years may, however, be readily understood, when it is considered that the Russian territory has now an extent of 22,000,000 of square kilometres (a kilometre is five-eighths of a mile), and a length of coast of 27,000 kilometres. If the population continue to increase in the same proportion, it will, by 1900, amount to 100,000,000. The Russian empire, according to the same document, contains 112 different peoples, divided into 12 principal races, the most numerous of which is the Sclavonian, including the Russians properly so called, the Poles, the Cossacks, and the Servian colonies of the Dnieper. These populations inhabit the finest and the most important provinces of the empire."

Statistics of the Population of the Russian Empire; Increase of the Population; Remarkable Fecundity of the Females.

We borrow from the Preuss. Medic. Verein.Zeit. 1855, No. 28, the following statistical results relative to the mean duration of life in Russia, and to the increase of the population. In a population of of 67,000,000, in the year 1853, we find that there are 2,782,636 births, and 1,950,132 deaths. Of these deaths 26,200 only took place beyond 50 years; 2,181 beyond 90 years, and 130 above 100 years; 7 from 125 to 130 years; and in the government of Pskow a man attained the age of 145 years.

The facts relating to the fecundity of women are so marvelous, that they might well inspire doubt, if they were not accompanied with so many details. We read in the Magazine of Natural History,

etc. of Moscow (4th part, p 80, 81), the following fact: On the 21st of March, 1755, the peasant Kirilow was presented, along with his wife, to the empress. This peasant was married for the second time at the age of 70. His first wife was brought to bed 21 times—4 times of 4 infants at a birth, 7 times of 3 infants, and 10 times of twins—in all 57 children, then alive. The second wife had already been delivered 7 times, once of triplets, and 6 times of twins—in all, 15 living children. This astonishing fecundity has been observed in other cases in Russia. Thus the peasant Gastorowa, of the village of Dolgom, was delivered on the 1st of March, 1854, of 5 infants, two boys and three girls, who all died the same day. At Torgowa the wife of a Kalmuck had a quadruple birth; one of the children died the next day. In the village of Iwokina, 26th May, 1854, a peasant had a quadruple birth, all the children surviving; and in November, 1854, another similar birth is recorded in the government of Vladimir. Many other examples are given.—*Gaz. Hebdomadaire.*

The following anecdote of the celebrated Surgeon of the Empire, we take from the *Edinburgh Medical Journal* for July:

Larrey, the Soldier-Surgeon.—If there is any man of whom the Pyrenees may be proud to have given birth, it is he who was pronounced by Napoleon I. to be the most honest man in his empire. Endowed with a noble heart, vast intelligence, and a vivid imagination, Larrey was indeed worthy of the friendship given to him by the greatest man of modern times. His name, too, holds an equally distinguished position at the present day, not only among men of science, but amongst all who are the benefactors of humanity. "If ever the army raises a column of gratitude," said Napoleon, "it owes one to Baron Larrey." This debt has been paid; the government, the army, all France, has joined in the national labor of love, and the truthful bronze now recalls to us the venerated traits of him whom we may justly term the father of French military surgery; for, from Ambrose Paré—of whose illustrious memoirs but an incomplete fragment has been transmitted to us—up to the first revolution, medicine was in its infancy. In the first days of the republic, everything had to be done; it was necessary to create, to organize; and the genius of Larrey alone was capable of this immense undertaking. Formerly our wounded soldiers were carried to a distance from the field of battle to receive the surgeon's first attentions; and many, too many, alas! died before they traversed the route to the ambulance. Larrey, seeing the insufficiency and danger of this system, at once ordered that the wounded soldier should be cared for, even under the fire of the enemy, and that the military surgeons should share with their comrades the danger of war; from this

arose his system of ambulance carriages, containing every necessary provision for acting on the spot. From this time, too, the French army surgeon, who had before been considered a sort of accessory to the army, gained definitely his place of honor on the field of battle. Larrey formed one of that phalanx of *savants*, who accompanied Bonaparte to Egypt; he was the friend and rival of Baron des Genettes, who immortalized himself by his heroic conduct among the plague-stricken at Jaffa. In this rough and laborious campaign he rendered such services to the French army, that this page alone in his life would have served to hand his name down to posterity. Later, in all the capitals of Europe, his voice was heard among scientific men, and philosophers of all nations came to listen to his instructions. Even kings honored him with their friendship. After the coronation of the Emperor, when that great captain wished personally to distribute the star of the Legion of Honor, he told Larrey that he intended to name him commander of the order. But although a surgeon-in-chief, he would not receive alone this distinction; and he told the Emperor that he would not accept the honor, without Baron Percy—another eminent surgeon—were accorded the same favor. Napoleon yielded, and the two representatives of French military science were thus named at the same time commanders of the Legion of Honor. This fact pictures the character of the man. Above all else a man of heart, he always remained pure and independent among the courtiers, who only echoed the opinions of their master. It was not obstinacy, but a free spirit and truthful disposition. Let us see what he did at Esling, when the French army was surrounded, and want began to be felt, even in the ambulances. He told them to kill his own horses, and upon his responsibility to sacrifice a great number of those of the superior officers, to make *bouillon* for his sick and wounded. The indignant generals, of course, demanded reparation against Larrey, and the Emperor summoned the surgeon to his presence. "What have you to say to this accusation?" said he. "Sire," replied Larrey, "the sick are my children; I owe to you an account of their lives; under these circumstances, I but did my duty. Besides, of what do these gentlemen complain; they have a horse each left, while I have killed all mine!" What could Napoleon do? He could not be angry; he pardoned the man for his intrepidity and honesty. When the harassed and maimed relics of the Grand Army were crossing the bridge of the Beresina, not one stayed to save his general, his friend, his father, not even to preserve his flag. Suddenly, on the middle of the bridge, a buzzing whisper ran through the crowd—a name is pronounced—hands are stretched out—a man is passed from arm to arm with all the care affection can suggest—that man was Larrey? After the battles of Lutzen and Bautzen, a number of soldiers were wounded in the hand by ill-constructed weapons. At the same time treason was suspected in the camp, and the gloomy mind of Napoleon saw in this a fresh proof of it. He summoned his generals to a council of war; they confirmed his suspicions, and, furious with jealous rage, he ordered Larrey to draw up a report upon the mat-

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ter. Larrey presented it, and the Emperor paced the tent in great agitation, digging up the turf with the end of his cane. "These men are guilty," he said. "They are not, sire," replied the intrepid surgeon; "the accusation of treachery is a calumny for which you will have to account to history." "Begone," said the Emperor, "I will make you know my pleasure." Larrey, calm in the security of a good conscience, retired, satisfied that he had done his best to save the lives of the innocent. A few hours passed, and at last Napoleon summoned him. "Thank you, Larrey," said he; "alas! why am I not always surrounded with men like you?" Bonaparte spoke truly; if he had only been advised by men of such energy and greatness of heart, in the days of his misfortunes, he might never have fallen. We must return to Larrey at Waterloo, where he had gone to assist at the obsequies of the Empire. His horse was killed under him; he was wounded in two places; he was crushed on the ground among the flying crowd; they had made him prisoner, and the Prussians were on the point of shooting him, when one of the enemy's surgeons, an old pupil at Vienna, recognized his old teacher, and hastened to apprize Blucher. His life was saved, and a guard of honor escorted him to the French frontier. They could scarcely do less for such a man. After the Restoration, he retired into the shade, shut out from the Court. Snrgeon-in-chief of the hospital of the Guard, he had neither distinctions nor honors; he was neither Peer of France nor Grand Cross of the Legion of Honor; he had almost forgotten the road to the Tuilleries of the Bourbons. One day a guard presented himself to him with a letter of recommendation. "What do yon wish?" said Larrey. "I would like to be corporal, Monsieur le Baron." "Alas!" replied the surgeon of the Emperor, "I have made generals in my time, but to-day I don't know whether I have interest enough to make a corporal." In 1830, the hospital of the Guard was on the point of being attacked by the mob; the authorities were unable to check them, when Larrey appeared and said: "My friends we have only sick people here; every good Frenchman ought to respect *this* asylum." The crowd instantly retreated with a round of applause to the gallant veteran. He was an old man, still active and energetic, however, and he felt that but a few years separated him from the tomb, when an irresistible desire seized upon him to revisit Africa, the scene of his earliest labors. The government yielded to his request and he set out His journey across the African provinces was one continuous ovation, an immeuse triumph; and his son, a *savant* worthy of the great name he bears, witnessed how his illustrious father was venerated by the French army. The presentiment entertained by everybody as to the result of climate and camp life upon Larrey, soon realized itself; and on his return to France, he fell a victim to the illness incurred by his devotion. His remains were conveyed to Paris. The Government of July refused the tomb of the Invalides to the captive of St. Helena, but the city of Paris spontaneously awarded a place therein to the citizen who had so well deserved of his country. A crowd of soldiers, *savants*, and people, mingled in

one mournful procession, followed Larrey to his last resting place. His numerous works, conceived as it were, under the fire of the enemy, collected from nature and enriched with ideas the most rare, are mines of information of which France may be proud. Friend of the Emperor, philosopher, a man of excessive energy, noble character, true heart, masculine and imposing in appearance even among the greatest men of the empire, Larrey is worthy of immortality.

On the Death of Charlotte Brontë. Communicated for the Boston Medical and Surgical Journal, by Dr. CHANNING of Boston.

The death of Charlotte Brontë is the saddest fact in a life whose key-note was sorrow, and whose melancholy music filled the very atmosphere in which she lived, and moved, and had her being. She may almost be said to have been baptized in the dark waters of death. Her mother died when she was about five years of age, and, in quick succession, four sisters and her only brother.

It was not a common family, that of Charlotte Brontë. Two of her sisters died young, but lived long enough to indicate that they would have left their mark on their times. The two elder sisters gave the same evidence of their power in written works. Her brother had large intellectual endowment and culture, but worse than wasted all that might have greatly distinguished him. We do not design in this notice of one whose life has been so admirably written by Mrs. Gaskill, and which all readers have read, to review this work. And yet it may not be out of place to say that it is a record of a remarkable person, who in the midst and pressure of severe trial, never failed in duty to herself, and to all whose well being she could in any way contribute. She was small, delicate in person—apparently incapable of effort. Yet she meets, or makes occassion for intellectual, moral and physical action, which in its detail astonishes us by its rarity, and still more by its success. She writes with startling strength—brings before you men and women, her own creations, and reveals what is in them, both in their word or work, in language and act which leaves little ground for question. She goes to a foreign country, of different language from her own—goes alone, by the guidance of the same instinct which always accompanies a true object, and accomplishes all she attempts. She writes, and while her manuscripts are gathering dust on the publisher,s shelves, she writes on, nothing daunted, and at length comes forth as an author, and declares, anonymously, her gigantic power. "Who wrote Jane Eyre?" is the question. "Not a man," says one, "for a man would not"—"Not a woman," says another, "for a woman could not."

Pardon us, that we have for a moment deviated from our purpose

—to speak of the death of Charlotte Bronté. We could not but say a word of a life so sad as was hers, and for the reason that in an event which was to her an unmixed felicity, she found death. Sadly, in deep sadness, do we ask, was it not a fitting coronation of such a genius, and such a life?

Charlotte Bronté married late in life. Her father opposed her marriage, and the daughter could not marry the man she so deeply loved, as her marriage must separate her from her father, now more than eighty years of age, and with no living creature of his house but her left. At last her father's consent is given and she is married. This was an event in Haworth. Everybody came to the wedding. Charlottee had been the friend of all the poor. She would traverse, in snow and rain, the wild moors of her home, to carry something for the sick child or parent, or to do something for them. Everybody knew her, and everybody loved her. Says Mrs. Gaskill, "many old and humble friends were there, seeing her look like a snow-drop." Her bridal dress, after a few months, became her shroud.

She became pregnant, and soon after experienced the ordinary symptoms of that state, but which rapidly became morbidly severe. Nausea, vomiting and faintness; and fainting, at first frequent, became at length constant. The sight of food was sufficient to produce them all in most distressing forms. Said one, "a wren would have starved on what she ate during those last six weeks." A physician was called. "He came, and assigned a natural cause for her miserable indisposition; a little patience and all would go right."

From the record, nothing more seems to have been said or done in this case. We copy the following from Mrs. Gaskill, because of its professional interest, and as showing something of the sufferer's state in the last moments of her life:

"Long days and longer nights went by; still the same relentless nausea and faintness, and still borne on in patient trust. About the third week in March (it was early in the new year, 1855, that the symptoms first appeared), there was a change; a low, wandering delirium came on; and in it she begged constantly for food, and even for stimulants. She swallowed eagerly now; but it was too late. Wakening, for an instant, from this stupor of intelligence, she saw her husband's woe-worn face, and caught the sound of some murmured words of prayer that God would spare her. 'Oh!' she whispered forth, 'I am not going to die, am I? He will not separate us, we have been so happy.'"

She died Saturday morning, March 31st.

It is of the professional relations of our subject—the treatment of the signs of pregnancy when morbidly aggravated, that we will now speak. Was the *cause* the *motive cause* of those symptoms which produced death in Charlotte Bronté removed? This question is of great interest. Nearly half a century ago, it was our privilege to attend the midwifery lectures of Dr. John Haighton, in London; and a better lecturer than Haighton is not in our memory. He discussed this question of removing the *cause* of those symptoms, and showed

conclusively that in cases in which other means had failed, and the worst consequences were to be looked for, it was the duty of the physician to remove the *cause*, viz: *to remove the fœtus from the womb*. Haighton related his experience, and dwelt on the opposition he had met with in consultations, to such measures as he knew could alone save life. More recently we have spoken with eminent men abroad on this subject, and have met with objections to the practice; or when it was allowed to be proper, it has been after so much evil has been done that there has hardly been any reason to look for success from it.

We have felt it our duty to resort to the measure under consideration, and in every case recovery has been rapid and complete. We have known death to happen when the measure has been rejected by patient or friends, and where all other means have been faithfully used. In one case it was clear that death must occur if things remained as they were, but in which the mother of the patient would not consent to the measure, unless the physicians who advised it would in the first place guarantee its success. The attending physician would not do this; and soon after our consultation we heard of the patient's death.

In another instance, the lady lived in a distant State. She was a clergyman's wife, and of the church of England. She was reduced by nauseau and vomiting to excessive weakness, and absolutely could keep nothing on her stomach. It was between the second and third month of pregnancy. The fœtus was removed, and in twenty-four hours after, we found her heartily eating solid food, and she was soon well. The operation was performed on the same patient a second time, under the same circumstances, and with the same result. Let it be remembered that this practice was not attempted until full trial had been made of the most approved methods of treatment, and after the best evidence that the decease was rapidly increasing. In another lady, it was not until convulsive movements had occurred in the universal exhaustion, that the measure was adopted. This patient recovered, and this was a second trial of it in the same patient.

We dwell on these cases, because a grave moral question is involved in our subject; and to say that it is only in those cases in which life is clearly in jeopardy, that any physician who deserves the name, would for a moment entertain the question we are considering. It is then as a *remedy;* and only to be used under what we believe are really desperate circumstances.

Whether the cause was removed in Charlotte Bronté's case, or whether she died of pregnancy, we know not. We know not what was the limit of that "little patience, when all would go right." But as the disease continued unrelieved till death, may it not be asked if the *cause* of that disease did not remain undisturbed till it became the cause of death? The question is put, because in no like case which has come under our care, however unpromising, has death occurred after the removal of the contents of the womb.

Statistics of Placenta Prævia. By Dr. Schwarz.

Dr. Schwarz of Fulda, in Hesse-Cassel, having heard the frequency of placenta prævia stated in a mediaal society as far greater than he had hitherto believed it to be, examined in reference to this point the official returns made by the Hesse practitioners. These were supplied by 150 accoucheurs, during a period of 20 years, i. e. from 1835 to 1854 inclusive. They related to 519,328 births, and among these were only 332 cases of placenta prævia—the number varying from 8 to 28 per annum. Of these 332 cases, 246 women recovered and 86 died: 251 children were born dead, and 85 were born living. In 40 instances the women were primiparous and in 292 pluriparous. Podalic version was performed in 259 cases, and cephalic version in 7; while in 23 instances the children were removed by the forceps, in 6 by craniotomy, and in 13 by post-mortem Cæsarian section. In 8 instances the placenta was removed, and in 16 the plug was resorted to.—*Monatschrift für Geburtskunde.*

Catamenial Gonorrhœa and Syphilis.

Mr. Frederick C. Skey, Surgeon to St. Bartholomew's Hospital, has recently lectured on Gonorrhœal Rheumatism. The London *Medical Circular* gives us the lecture, from which we make the following extract, bearing upon a point of great interest:

I saw some time ago another most remarkable case of this kind—the splitting in pieces of a family might have occurred from the raillery and ignorance of the hospital surgeon, but he could not see it. A respectable-looking married man came with this catamenial gonorrhœa; he was very much puzzled about it, but the surgeon laughed at him: "So ho, my fine friend," he said, "you've simply gone and done it, you've been with the girls." The man said not,—that from the nature of his business it was impossible. "Then some one has been with the girls or with your wife, for you have the bad disorder—that's the short and long of it." The man protested, till at last he swore an enormously large oath at the ignorance of us all. "Why, I have committed as many crimes as many men, and why should I be such a fool, if I wished to be cured, as to say if I had, that I had not had intercourse with a woman." I don't believe he had, but that it was one of the dozens of cases where the irregularities of married life had given rise to a gonorrhœa or blenhorrhœa, that I defy you to distinguish from common gonorrhœa. I say there is a "tertium quid" engendered during the period of ovulation or menstruation in the female, that may give rise to gonorrhœa, but I do not believe in syphilitic inoculation. If you know how to treat rheu-

matism you know a great deal also of this disease. Mr. Abernethy, as I said, already went to the threshold on the subject, as regards "rheumatic gonorrhœa," or what you will see copied in the books and manuals as gonorrhœal rheumatism. Evans and Rose and Hennen, away from the coteries of London, settled the thing for ever. You are probably aware, the prostitutes in France are all examined at stated times, and are furnished with clean bills of health? Well, Evans saw several hundreds of these women examined, and only three were diseased: but he had 153 soldiers under his care at that moment with syphilis! I say how did these 153 soldiers become diseased from three women? How did they get it? Where was it to come from? To my mind, now, it is as clear as that chloroform will produce insensibility, or any other fact in surgery; they got it from the clean women and not from the diseased. I told you of Torres Vedras. This army was inaccessible for a long time, and dozens of officers had intercourse with the couple of girls dancing at the theatre. These girls, mind you, in good health, yet shoals of these officers came to England with bad phagedænic sores. Do you think they got phagedæne directly, as Mr. Hunter would think, from these girls? I don't.

Well, I'll tell you another case, and within a very short period of the present—not to go back to Torres Vedras or Waterloo, or tire you with what you will find decked out in the books of the schools—the case of a lawyer. [I am glad it's a lawyer, if it must be somebody—(laughter)—lawyers are so wedded to do nothing if erroneous to the decision of their judges.] It was, in a word, the counterpart of the first case—seduction—love (the old story)—seduction, gonorrhœa, and a crop of sores. I examined the lady with the utmost minuteness. I sifted this case carefully. I believe there was no disease whatever in the lady nor in the gentleman, previous to the occurrence. Yet all the—what shall I call it—legal evidence was the other way. Legal proof on medical subjects at present is the greatest absurdity under Heaven; because well-bound books on surgery say one thing to a man with a wig and gown on, and because a surgeon's opinion, which is not only *viva voce* and original, but fairly worked out after thirty or forty years' analysis of facts and cases in hospitals, must be thrown to the winds, in favor of the *dictum* of some old book, or some new book copying the old.

I say this material syphilitic infection is all a fallacy. I don't believe either in all that black letter lore of syphilis coming from St. Domingo with Columbus in the 15th century. Gonorrhœa is detailed in our oldest and most sacred of books.

Mr. Skey next stated the particulars of a very interesting case—a case of most frightful phagedænic sores in a gentleman, like those of the officers sent from Lisbon, but where the disease was clearly the result of scrofula, or some such constitutional taint in the gentleman's system, aggravated by those injudicious courses of mercury, ordered for a very simple affection at first. The case was one, also, where the hymen was ruptured for the first time, but not a trace of disease existed in the lady.

"This old mercurial school, however, still holds out," Mr. Skey continued to say, "I am sorry that even men like Sir B. Brodie still belong to it; it is not true that a woman who will allow one man to her embraces will allow any other; and if the disease be checked by mercury—*post hoc*, &c.—that we should go on giving it! In this last patient it made all this difference; that whereas Rose, or Evans, or Carmichael would have cured this gentleman without mercury; in following the plan of the older schools, he was at the point of death, owing to the mercury, under the first advice in London, affecting the membranes of his brain. We shall not speak of the hideous mutilations of face and nose, the time sacrificed away from business on the sick list, and the marks which rupia too often leaves on the forehead and face. I am satisfied, and you will be so, too, when you see some practice, that all this old-fashioned dosing system with mercury is bad. I would almost go so far as to say, that the very worst cases of syphilis, so called in men that I have seen, have been the result of something wrong with the man rather than with the woman; and where the "tertium quid" was aggravated by this system of giving mercury, as a piece of murderous old routine in all cases alike!

Well, a few words now as to gonorrhœa and rheumatism. Is there such a thing as spontaneous gleet? Yes—it is a catarrh of the parts; I know a gentleman who has had gleet; but he has been several months, aye years, in bed for another disease, and he had no possible manner of getting gleet.

You will find gonorrhœal rheumatism is eccentric gonorrhœa; mostly in oldish people, the disease mild or the opposite, fond of fits and starts or aberrations; it is gonorrhœa in a rheumatic system, but not rheumatism connected as a secondary symptom or as cause and effect with gonorrhœa. I am satisfied gonorrhœal rheumatism and gonorrhœa are children of one parent, and not related as rheumatism the child of gonorrhœa—the parent.

I will now tell you more: I have seen *every form of syphilitic disease* as obtained from healthy women. These cases occur in the better ranks of society, with men who are above suspicion. What is sometimes shocking in a moral point of view is of the utmost value to us pathologically. But I must not dwell on these cases. The gentlemen come to me expressing their unbounded astonishment, yet if you make the most careful search, even with the speculum, there is no disease in the lady, it would be almost a relief to one's mind to find something, but there is no disease whatever. No! it is all fallacious.

Statistics of the "Umbilical Cord." By Mr. Beale.

"On looking over a record of midwifery cases attended by myself, I was atonished at the number of times in which the umbilical cord

was found encircling the neck. In 1,220 cases, it was once wound round the neck in 175, twice round in 32, and thrice round in 7 cases. In 1 case, the cord was crossed over the chest and back, and looped under both axillæ; it measured 58 inches in length. In 3 cases there was a single knot on the cord, and on one funis were two knots. Dropsy of the cord occurred once, increasing its breadth to two inches, and rendering it very tortuous. The shortest cord was five inches in length. (In Dr. Rigby's 'Midwifery' there is mention of a case in which it was but two inches long, and another in which its length was 61 inches, *vide* page 182.) I did not notice any unusual retardation of the labors in those of my cases to which I have referred, only more or less lividity of the neck and face, according to the time spent in the head passing into the world.

"These cases give, as the average, about 1 in 5 in which the cord is so coiled. It seems surprising that in cases of alleged infanticide the plea of death being caused by the pressure exerted by the funis (without help) has not been seized upon to any extent by the counsel for the defence, for such a liability must tend to diminish the chances of life. These cases, however, rarely go beyond a charge of concealment being sustained."—*Medical Circular.*

PART THIRD.

BIBLIOGRAPHICAL NOTICES AND REVIEWS.

Elements of Pathological Anatomy. By SAMUEL D. GROSS, M. D., Professor of Surgery in Jefferson Medical College, Philadelphia, and formerly Professor of Pathological Anatomy in the Medical Department of Cincinnati College. Third Edition, modified and thoroughly Revised. Illustrated by Three Hundred and forty-two Engravings on Wood. Philadelphia: Blanchard & Lea, 1857, pp. 771. (For sale by Riley & Co.)

As stated above, this is the *Third* edition of Professor Gross' work on Pathological Anatomy. The *first* edition appeared in two volumes; the *second* consisted of a single volume; the third, the one before us, also of a single volume.

The present differs from its predecessors in several respects. The author states that it has been materially modified, and fully brought up to the existing state of the science of which it treats. Much that

related to Histology and Diagnosis in the preceding edition has been omitted, while no inconsiderable amount of new matter has been added; and where it was necessary the language has been rendered more "concise and terse." Besides, there have been introduced one hundred and thirty new cuts, drawn for the most part from the Author's own specimens, and engraved under his superintendence.

The dedication of the former editions was to Daniel Drake. This the Author has not thought proper to change in the one before us. Side by side he and that uncommon man labored for years in schools of the West in the cultivation of the science of which this volume treats, and hence what more praise-worthy than this evidence of a disposition to perpetuate tokens of regard.

The work is divided into TWO PARTS.

Part 1, consists of twenty chapters; part 2d of twenty-seven.

Part first, discusses the *General Principles of Pathological Anatomy;* part second, *Special Pathological Anatomy.*

With regard to the merits of this work there can be no diversity of opinion. It is a condensation of what is accredited as knowledge in the department to which it relates. It is not founded entirely upon the observations of the author, for this would, as with any other work of the kind, have impaired its value as a *resume;* but upon the trust-worthy researches of most who have labored availably in the department. The Author occupied the Chair of Pathological Anatomy for four years in the Cincinnati College, during which time the materials for the body of the work were in part collected. Since that time he has, as we see, been careful to watch the progress of his subject both at home and abroad. This has made it necessary to re-write much of the work in order that it may conform to the latest discoveries and most approved reasonings.

A feature of the work with which we are pleased consists, where the subject is of importance, of a brief historical outline of its progress, and a statement of the opinions of those who have in early times given it their attention. On the old and hackneyed subject of *Inflammation*—a process that is yet not exhausted—it is amusing to see the diversity of opinion. With some it constitutes the whole subject of pathological anatomy; no process of which it is not the leading, controling element. Indeed, the conservative and cautious, allowed it to figure so largely, at one period, as to run them into a practice almost mechanical. Then, again, on the nature of the process how widely different, or rather how opposite, have been the

views? While the capillaries have been regarded as its seat by pretty general consent, one would have these affected with spasms or paralysis; another with inertion, and a third with an excess of mobility. Bennet would say that it is a deviation merely from healthy nutrition; Leibig would say it is the result of an unusually rapid union of the oxygen of the arterial blood with the tissues of an inflamed part. Then, again, there are some who ignore the term inflammation altogether, referring all the phenomena to congestion heyperæmia, etc.

Such thinking with reference to the most general of the abnormal processes shows the difficulty of comprehending subjects of pathology. Reasoning on the process, no doubt, first led to its location in the capillaries. But after this, it was the blind leading the blind. To understand the matter the aid of the Microscope was required.

The Microscope confirms the old doctrine of the capillaries being the seat of the first changes that take place in inflammation. It goes on to show that there is *increased* motion or determination of the blood to the affected part as the first stage of the process. This is succeeded by distension of the capillaries and stagnation of the current. The stagnation seems to be due to several causes. 1. The *white* corpuscles, from their greater cohesiveness, become attached to the walls of the vessel in quantities that block it up, thus preventing the *red* corpuscles—the oxygen carriers that occupy the more central part of the caliber from passing the accustomed route. 2. Late researches seem to show that the walls of the vessel of an inflamed part becomes affected so as to give off *cells*, resembling the white corpuscles of the blood, except in the circumstance that the cell wall is deficient, and hence their more adhesive property. 3. The exosmosis and osmosis of the *red* corpuscles, by which they too become unnaturally adhesive, and thus co-operate with the white in the process of obstruction. 4. Not only altered affinities between the particles of the blood, but between these and the walls of the vessel do much in producing the stagnation. We have, therefore, in an inflamed tissue increased and diminished action, and a process of cell-formation set up in the part, together with altered affinities.

All of these conditions point to a pathological process, which can only be understood by interrogating them separately. They also indicate why the process is so destructive to structure, as well as to function.

The Author's extensive acquaintance has enabled him to collect from practicing physicians quite an amount of indigenous experience, rare in character and of high interest. Under the head of *Internal Strangulation* a case is referred to of which we had some knowledge in early professional life. The case was published originally in the *Western Journal of Medicine and Surgery;* and as published is erroneous in a very important particular. It was a case of *Intussusception,* and the subject of it was a boy, 6 years of age, the son of a farmer. He was at first attacked with spasmodic pain in the bowels after eating green currents. Vomiting, arrest of alvine discharges, and fever succeeded. The abdomen became tender, and in the right iliac region a tumor of half the size of a man's fist made its appearance. The cause of the trouble was revealed on the 17th day of the disease, instead of on the 7th, as the Western Journal has it, by the elimination of a portion of intestine *twenty-nine inches* long, consisting of the colon, parts of the cæcum, and vermiform appendage. The patient recovered without any unfavorable symptoms; but was for some months liable to attacks of colic, except when his food was properly selected. He lived some 14 years after the accident, working on a farm most of the time, and then, as we have learned, died as seemed from inanition. No *post-mortem* was made. We had removed from the region; and the physician in attendance was not aware of the great importance of seeing how Nature repaired such accidents.

Comparing the present with former editions of this work, several very essential improvements may be noted. The Microscope, the revelations of which received but a passing notice in former editions, in this, figures very formally. A paragraph on *"Microscopical Characters,"* is introduced wherever it is regarded as contributing to the full elaboration of the subject; and, in our judgment, this feature adds very much to the value of the work. A treatise on pathology, in these days, that ignores or neglects the Microscope would not meet with a very cordial reception from any one, much less from those who are on the frontiers of science and whose good opinions are most desirable. The truth is the Microscope unfolds Physiology, and Physiology lays at the foundation of pathology. Whoever talked with any sense on inflammation, until the Microscope revealed its nature? Without it, indeed, we should have remained in ignorance in regard to the existence of many diseases; and between oth-

ers would have been unable to make the proper distinctions. The truth of the latter remark is illustrated especially in diseases involving the blood, urinary apparatus, etc.

It is very difficult to get up a book on a Medical subject free from theory, theory too in its most objectionable sense. Facts are prosy things, and in the estimation of many, don't jingle well by themselves. In the first edition of his work the author took the position that *Tubercle is of inflammatory origin;* and gave his reasons, No. 1, 2, 3, etc., in favor of the notion. Now it constitutes no part of our present purpose to attempt a formal refutation of the reasons the author has posted up in favor of this dogma. We will however transcribe the substance of them, and offer a remark or two on their validity.

The doctrine of the inflammatory origin of tubercle, the author thinks is established: 1. By the chemical composition of tubercle, which consists of albumen fibrin and gelatin; substances that if found on the surfaces or interstices of organs, are to be regarded as the result of inflammatory irritation. 2. Tubercular matter bears a great resemblance to cacoplastic lymph which is an acknowledged product of inflammation. 3. Tubercular deposit is often excited by cold and moisture conjoined, and by unwholesome indigestible food. 4. The disease is often attended or preceded by congestion or hyperæmia. 5. The doctrine of the inflammatory origin of tubercle derives plausibility by what occurs in inferior animals from mechanical irritation; tubercles being produced by the dropping of mercury into the trachea. The same results are witnessed in miners, needle grinders, etc. 6. Scirrhus encephaloid and other carcinomatous growths are of inflammatory origin. 7. There is no appreciable deposit, secretion or effusion in any of the shut sacs, cells or cavities of the body, which is not the result of inflammatory action.

An author is often so deceived with his own reasonings when he has been in the habit of repeating them frequently that he cannot see their sophistry until there is an analysis made and the terms reduced to the elementory form.

The proposition, that tubercle is of inflammatory origin is sustained the author thinks by all the reasons above enumerated. As a sample of the way he sustains his doctrine, take one or two for the purposes of analysis. The argument as stated would stand thus:

Tubercle is of inflammatory origin,

Because it is often excited by cold and moisture conjoined.

Again tubercle is of inflammatory origin,

Because scirrhus encephaloid and other carcinomatous growths are.

The form of these arguments it will be noticed is that of *enthymemes*, an abridged form of the syllogism, where the *conclusion* and only one of the *premises* are expressed. In each one of the above examples the *conclusion* (to wit: that tubercle is of inflammatory origin) is stated, and the reason, one of the premises, (the minor) given afterwards. There is therefore in the mode the author has chosen for the expression of his argument *a suppression of the major* premise. This needs to be supplied and the premises arranged in the regular categorical order to see the force of the argument.

We will now state one of the author's arguments, the third, in its regular form, supplying the major premise.

All diseases produced by cold and moisture are of inflammatory origin.

Tubercle is produced by cold and moisture, therefore

Tubercle is of inflammatory origin.

Now is this major premise (all diseases produced by cold and moisture conjoined are of inflammatory origin) in the above example true? It should be true to make the reasoning of the author valid. It is however a mere assertion. Cold and moisture conjoined are very capable of producing inflammation. But this by no means is their *universal* effect. They occasion disease most frequently by suppressing or interrupting the functions of the skin. The matters usually eliminated by this organ have to seek an outlet through some other or be retained in the circulation. But is this condition of things inflammation?

We have a few cases on hand just now of *scarlatina* in the stage of convalescence; two of the patients are effected with anasarcous swellings. We suppose this complication due mostly to cold damp air acting on the surface by which one of the outlets of water from the system is for the time suppressed. Are these dropsies inflammatory in nature?

The sixth, for example, proves something else, rather than the proposition in debate. The author in this undertakes to prove that tubercle is of inflammatory origin, because scirrhus, encephaloid and other cancerous growths are. This is strange logic. Does it follow that because a disease can be found that is of inflammatory origin

that therefore others are, or tubercle is? This looks like a *petitio principii* — a supposed proof by stating the question in other words.

We might allude here to another mode of testing the truth of reasoning. The author's proposition is that tubercle is of inflammatory origin. Now does the negative or contrary of this proposition involve either an absurdity, or an impossibility? We think not. A proposition the very opposite of that of the author is far from being an absurdity, far from being impossible.

The doctrine of the inflammatory origin of tubercle gave rise to a corresponding practice — depletion and antiphlogistic drugs, when this doctrine obtained, made up the treatment for tubercle. But how has the theory been confirmed by the results of practice? Is there a medical man now living who would either bleed or give drugs which waste strength in treating a case of genuine tubercle? The truth is remedies exactly opposite in nature, are now, not only the fashion, but, unless observation is very much at fault, are the most available. Stimulants, rich food and oils, together with proper ventilation of the blood possess just now a monopoly of confidence.

Early impressions are hard to be eradicated. The author was educated in the days when inflammation figured in the minds of the leading men in almost every pathological process, and he imbibed mental tendencies, as a consequence that now 'crop out' rather unseasonably. Rush could generalize and say that disease is a unit Broussais, that gastro-enteritis lays at the foundation of most fevers; but the days for dogmatisms are past — theories are at a great discount. Utilitarianism and the love of facts have got into literature, and our writers will have to govern themselves accordingly.

We close our notice of this book with reluctance. We can spare to it at present no further attention. While it contains a few of the foibles incident to authorship, it contains also a very complete summary of knowledge on one of the most useful branches of medicine, well arranged and handsomely expressed. As a hand-book for the student it will take a high position; and the experienced practitioner may also consult it with advantage.

Manual of Physiology. By Wm. Senhause Kirkes, M. D., Fellow of the Royal College of Physicians, Assistant Physician to and Lecturer on Botany and Vegetable Physiology, at St. Bartholomew's Hospital. A New and Revised American from the last London Edition. With Two Hundred Illustrations. Philadelphia: Blanchard & Lea. 1857. pp. 584. (For sale by Riley & Co.)

The primary object of the author of this work has been to furnish something in the way of a *Manual*—a *Handbook for Students.* As a consequence, it omits all discussions of unsettled questions and expressions of personal opinion, referring the student to works in which these may be read, and by which the study of physiology in its widest sense may be pursued.

This volume is what it purports to be, a manual for students, containing the cream of physiological science very well arranged. During the period of receiving an education it will prove to be more available than larger works of the kind.

Principles of Medicine. An elementary view of the Causes, Nature, Treatment, Diagnosis and Prognosis of Disease—with brief remarks on Hygienics, or the Preservation of Health. By Charles J. B. Williams, M. D., F. R. S. A New American, from the Third and Revised London Edition. Philadelphia: Blanchard and Lea. 1857.

The progress of inquiry has had the effect to show a very close relation between physiology, chemistry and pathology. The healthy body, its constituents and functions, when properly understood, must be the foundation of all philosophical views with reference to pathology. We must know what the machine is, the materials of which it is composed, and the movements of these, if we would know when a screw gets loose, or when a wedge drops out.

One of the things that we have inherited, and that has adhered to us with great pertinacity, is our habit of regarding diseases as independent entities, as processes capable of maintaining an existence without reference to the standard of health, of which they are but deviations. We might trace these irrational dogmas back to the times when certain chronic maladies figured as witches, evil spirits, devils, etc., and when some old women, or the gods, had to be invoked for their expulsion. Such times have, in a measure, passed

away; but we are not yet completely out of the fog. All the conditions of health must be understood. Structure, chemical composition, vital composition and endowment, together with functions and affinities, before departures or deviations can be recognized. Progress has been such that it is now regarded as philosophical "to place the practice of Medicine on a footing corresponding with Physiology, Chemistry, and other sciences, which equally depend on the accurate observation and rational arrangement of facts." There was a time, for example, when our information was very crude in regard to diseases of the blood—when all that we knew of the diseases of this fluid was expressed by the phrases, *pale* blood, *dissolved* blood, *putrid* blood, etc. The constituents and their proportions in the blood being now understood, we speak of the *excess, defect or altered state* of the red corpuscles, colorless corpuscles, fibrin, albumen, fatty and other combustive matters, saline and mineral matters, water, etc., as diseases, as variations from the standard of health; and upon the view taken, a system of practice is instituted, with the results of which there is every reason to be pleased.

PART FOURTH.

EDITORIAL AND MISCELLANY.

NATURE AN ART IN THE CURE OF DISEASE.—Most of our readers doubtless recollect the appearance in 1845 of certain well-written articles on Homœopathy, Hydropathy, Allopathy, written by Sir John (then Dr.) Forbes—Fellow of the Royal College of Physicians, etc., etc. The same mind from which these articles emanated, has lately given birth to what he is pleased to term, "*A Legacy to my Younger Brethren,*" the object of which appears to be to consider the influences of *Nature* and *Art* in the cure of disease. Being now full of years, and having an enlarged experience, the author, it seems, is conscientiously impressed that it is a duty he owes to his "younger brethren" to give them a piece of his

mind on the mode of curing disease. This is a laudable impulse; and we owe to it, to the age of the author, and to the high position he has occupied, and still occupies, respectful consideration. An experience of *fifty years* is seldom unprolific, and least likely to be so when united with acknowledged ability, as in the instance before us. All feel like uniting in the wish that the last work of an individual who has been an industrious observer and author, should be successful. Entertaining this feeling, almost any one would have suggested for Sir John Forbes a different field of labor than the one he has chosen for the last efforts of his genius. His subject, *Nature* and *Art* in the cure of disease, is as old as sophistry in Medicine, and by the ancient authors has been presented in a variety of phases; and so far as we can see, they have exhibited as much ability in its consideration as has the author of the *"Legacy."* Early in the eighteenth century speculation reached the point of forming a separate system of medical practice, founded upon the autocracy of Nature to remedy her own troubles. It was brought forward by Dr. Stahl of Germany, and denominated, *"Ars sanandi cum expectatione"* —the art of curing disease by expectation. The reasonings given in support of the theory we transcribe for the benefit of those who love the mysterious and fanciful rather than the slow inductions of science:

"The motions and functions of the human body are governed entirely by the *Rational Soul*, to many of the motions of which it is not conscious, owing to a habit of action and not to the physical mechanism and irritability of the living solids. The *soul* being extended through the medium of the nerves *to all parts of the body*, perceives every noxious impression or disorder that occurs in the system; and like a faithful guardian, calls such powers of the system into action as are qualified to remove or obviate the noxious impressions, and to preserve its salutary operations."

After suggesting the use of preliminary measures in the treatment of diseases, such as would at once occur to the mind of every well educated physician, Sir John directs as follows:

"Applying these measures under a watchful supervision; *not to attempt by any vigorous measures to alter the course of the morbid process so long as they seem to keep within the limit of safety*, and when they transgress, or threaten to transgress this limit, *only then endeavor to modify them by such mild measures as*, if they fail in doing good, cannot do much harm."

Between this doctrine, and that of the German Stahl, above no-

ticed, there is, in substance, no difference. Both lead to the same practice, the expectant—an expectation that Nature is competent to cure the disease—an ignoring of the use of drugs.

An "out and out" new theory, if ingenious in part, and mysterious in most, would very likely have had a run. But for an old one, revamped, there is but little taste in the public mind. From the reputation of Sir John, it might, *a priori*, have been inferred that his genius would have been equal to the task, where, as in medicine, there is so much latitude, of elaborating something that at least had the appearance of novelty. The resurrection he has made of a skeleton, fossilized, and belonging to a period when the human mind, so far as medicine is concerned moved very irregularly, is unworthy of him.

The *armamentarium medicorum* embraces *regimenal* and *medicinal* treatment.

About the former there is no question. The use of baths, hot and cold, ice to the surface, and ice drinks, poultices, fomentations, mucilaginous drinks, commend themselves so unequivocally that no one in their senses doubts their availability. It is against *drugs* that the objections are made. Here we find the want of confidence. This brings up the question: Have we any substances capable of actually curing diseases? The *modus operandi* of medicines—how they operate in the cure of disease, ought not to be in issue, for there is no way by which such a question can be solved. The old doctrines that they do so by acting on the solids, or on the fluids, or through the nervous system, is as foreign to the inquiry as the recent one, that they do so by correcting derangement of atoms of a diseased structure, or of adding them when deficient, or of substracting them when in excess. Nor has the theory, so popular in our day, that medicines act by assisting Nature—any necessary connection with the matter in hand. No one can tell, whether, when a medicine enters the body, it goes to work to expel or neutralize the views on "its own hook," or enters into a copartnership with Nature to accomplish the same end.

No one denies Nature's competency to cure many diseases. But is it any less certain that drugs possess positive curative powers? Take, for example, the use of iron in chlorosis. We have here, among other things, a deficiency of red corpuscles in the blood; it is a disease of the blood. After Nature has battled with it for months, it often seems that the only effect is, that it gets more deeply entrenched. Iron is administered, and the healthy glow of the cheek

soon announces amendment, and after a while the patient recovers. We have a case of intermittent fever—a regular ague. After its cycle of changes are once well inaugurated, the tendency in many instances is, that the disease persists, and so gains over the powers of Nature as to become almost "second nature." Months, and even years, are often consumed in this way, the chances of getting rid of the disease by the curative powers of Nature being in an inverse ratio to the length of time the disease has run. In such a case twenty grains of quinine, nine times in ten, produces a cure. How the drug accomplishes the object no one in the present state of sciences can tell. It is the circumstance that *it does it*, and that too without leaving any room whatever for doubt, that interests us in the present connection. Take another example: We have a case of violent Gastralgia. A dose of morphine gives almost instant relief. A sufferer in great anguish is relieved in almost a moment of time.

Innumerable instances of the same character might be adduced showing up in an equally strong light the fact that the Creator has placed in certain substances properties which *cure* disease. But, says the reader, why insist upon a matter acknowledged to be true from time immemorial? We reply, because it is skepticism here, a want of confidence in drugs, that lays at the foundation of all the efforts, including those of Sir John Forbes, which attempt to limit the treatment of disease to the resources of Nature.

Every physician of properly balanced faculties when he encounters a case of disease, will revolve in his mind at once the fact that his means of cure come from one of two sources, from Nature or from Art. If the case is of mild character, or self-limited, he will expect nature mostly to perform the cure. The treatment here will be limited to the Regeminal. If, on the other hand, it is very grave, a sinking chill (congestive intermittent) or an inflammation of some important organ or membrane, he will resort at once to the measures and drugs that the experience of two thousand years has endorsed as efficacious. What would be thought of a medical man in any of our extensive malarious regions who would stand by the side of a patient, that had had one congestive chill and was hourly expecting another, waiting to see if nature would not accomplish a cure? A repetition of such paroxysms are dreaded by the knowing physician; and morally certain that he possesses a drug that will "*put a stop*" *to them*, he would stand self-condemned not to administer it in *heroic* doses—the only doses proper under the circumstances.

When a case of disease presents itself for treatment, the question naturally comes up in the physician's mind, upon which, nature or drugs, should most reliance be placed for the accomplishment of a cure. Weak minds here go off at once in opposite directions. The one who has paid but little attention to Physiology, to Physiological Pathology, to the powers and resources of nature, to the natural history of disease, will place all his hopes mostly upon the *materia medica*. Another one whose organization and habits have lead him to doubt the testimony of the best observers, that of his own senses, and indeed the severest methods of reasoning, will use medicines as mere "time-keepers," things merely to divert the attention of the patient. Now, a judicious physician will pursue a very different course. His knowledge of nature, having witnessed her in both victory and defeat, his knowledge of the properties of drugs, what can be accomplished by them, and what can not, will lead him to trust what ought to be to nature, and to trust what ought to be to drugs. In some cases, feeling confident of the powers of the system to eliminate the virus, he will do but little; in other instances, where experience has demonstrated that no such result can reasonably be expected, he will *"take the bull by the horns,"* and throttle him at once.

It is the tendency of all civilizations to become, in due course of time, effeminate—to lose the courage and force of early life. Medicine being an integral part of civilization, it seems, to a certain extent, to obey the same law. There is a marked cowardice growing up in regard to the use of heroic remedies, it matters not what are the emergencies. The term "heroic" originated from the reckless use, or perhaps we might say from the empyrical use of large doses. It is now, however, applied to the practice of all those who look upon drugs as competent to subvert morbid processes. Now, if medicine possesses any agency whatever in the cure of disease, a certain amount of it is required, and it is just that amount, whether great or small, whether heroic or infinitisimal, that is proper. Enough must be given to fulfill the indication present or the practice is useless.

We had supposed the professional cup about full, in the way of "systems," "theories," etc. Mostly such troubles have emanated from "outsiders," or those who have never had any standing as men of science. Home thrusts just now were not expected. Of Sir John, therefore, the exclamation may well go forth—*et tu, Brute!*

Cranial Characteristics of the Races of Mankind.

J. Aitken Meigs, M. D., Philadelphia, has furnished for the late work, "*Indigenous Races of the Earth*," a chapter on *Cranial Characteristics*, in which he proposes the following questions: "What is the nature of the skull as a whole, and what is the nature respectively of its different parts? Why should it be composed of 22 bones and no more? What is the meaning of the *sutures* and what their relation to individual and race forms of the skull? What are the relations of the cranium to the bony skeleton, on the one hand, and to the delicate organs of thought and sensation which it encloses on the other? * * * * * * When has it attained its full growth, and what are the evidences of this fact? Is this period the same in all the varieties of men? Does the cranium form the brain or, vice versa, does the latter mould the former to itself? What are the relations of cranial form to mental and moral manifestations, to capability of civilization and actual progress in art, science, etc. Is there one; or are there many primitive cranial types or forms; if one, how have originated the distinctions we now perceive? If many, what are the distinguishing peculiarities of the primitive forms? Are there peculiarities primordial and constant, or can they be accounted for by the action of external causes? To what extent is the form of the cranium modified by climate, habits of life, age, sex, intermarriage, etc.? Does intellectual cultivation modify the form of the skull? Can acquired modifications of cranial form be transmitted hereditarily? If so, what are the laws of this transmission? Is there for skull-forms, as Flourens has said of races, an art of preserving their purity, of modifying them, altering and producing new ones? Are the leading cranial types which we at present encounter in the human family primary results of certain cosmogonic causes which ceased to act the moment after their formation; or are they the secondary or even tertiary and quaternary results, as Count de Gobinean supposes, of the intermixture of races occurring at periods ante-dating all historical and monumental record?"

Cranioscopy is now a science dating from the time of Blumenback, and as a consequence about 70 years old. On the different departments of natural history we have for a great while had elaborate and expensive works illustrating every thing of importance; and intelligent and scientific travelers have thrown away volumes on dress, arms, ornaments, landscapes and obscure antiqities of races,

while but little attention until of late has been given to the natural history of man. The most useful of all maxims, "*Know thyself.*" "The greatest study of mankind is man," has been ignored to an unwarrantable extent.

Blumenbach commenced the subject of cranioscopy with 55 skulls. The collection made by the late Dr. Morton now embraces 1035 crania, representing more than 150 different nations, tribes and races.

The attempt to place man in his proper relation to other animals began with Buffon and Linæus. Buffon first in merit, but second in order of time. Classical writers, such as Thucydides and Herodotus, intersperse what they have said of matters in general with more or less of ethnographic sketches. Upon the osseous frame-work, however, these authors bestowed no attention. Their valuation of characters was founded mostly on the color of the skin, hair, social habits, civilization, etc. Cuvier, in his *Regne Animal*, affords the first practical recognition of the Zoological relations of man. In 1828 Blumenbach published the *Decades Craniorum*. This work occupied the field of the comparatine cranioscopy of the races of men, and may be regarded as having given the first impulse to ethnographic inquiries. Daubenton also wrote on the same subject. For the study of cranioscopy in profile, we are indebted to Camper, whose name is connected with the *facial* angle. Sœmmering called attention to the occipito-frontal arch, the horizontal periphery and longitudinal and transverse diameters of the cranium in order to diagnose between Europeans and Negroes. From Sœmmering to Morton quite a number of names might be enumerated, but we have no time to allude in this connection to them. To Morton, Prichard, Lawrence, Retzius and Nelson, the world is mostly indebted for what has given to this young science its greatest attraction. Morton regards the internal capacity of the cranium, the number of cubic inches it measures as a good stand point from which to contemplate races. Prichard divides all skulls into, 1. The symmetrical or *oval*, which is the form of the European; 2. The *prognathnus* or narrow, the form of the Negro; and 3. The *pyramidal* skull with the square face which is that of the yellow races, the Chinese, etc. Retzius in an essay on the cranial forms of Northern Europe divides all skulls into long and short. Each of these he sub-divides into straight-jaws, and prominent jaws. The *long heads* with straight jaws embrace the Celtic and Germanic tribes; long heads, prominent jaws, embrace

the Negroes and Australians. The *short heads straight jaws* embrace the Laplanders, Fins, Sclaves, etc. Short heads, with prominent jaws embrace the Tartars, Mongolians and Malays.

Among all the modes of getting at the mental and moral capacities of the different races, Morton's seems the most philosophical. The internal capacity of the cranium in cubic inches must, other things being equal, reveal the secret of mental force. The brain is the organ of thought and sensation; the more of it, the more of these endowments.

A table showing the size of the brain in cubic inches, as obtained from the internal measurements of 663 crania of various races and families of man gives the following: Mean of caucasian, 93–5 cubic inches; of Mongolian, 87; of Malay, 85; of Negro, 82. Difference between Caucasian and Negro, 11 cubic inches; between Negro and Malay group, 3 cubic inches; and between the Negro and Mongolian, 5 cubic inches.

The collection shows the Toltecan family, Peruvians and Mexicans, to present a mean below the Negro. Measurements of 152 skulls of Peruvians give a mean of 75–3 cubic inches; 25 Mexican skulls a mean of 81 cubic inches.

Morton thus describes the Greek physiognomy which may be regarded as the type of the Caucasian race:

"The forehead is high and expanded, and but little arched, so that it forms with the strait and pointed nose, a nearly rectilinear outline. This conformation sometimes imparts an appearance of disproportion to the upper part of the face, which is, in a great measure, counteracted by the largeness of the eye. The Greek face is a fine oval and small in comparison to the head. The nose falling strait from the forehead, sometimes inclines to an aqualine form, and is often of more than moderate length. The upper lip is short and the mouth delicately moulded. The lower jaw is not so large as to disturb the oval contour of the face, and the chin is prominent; the general expression, with less sternness than in the Roman, has equal daring, and betokens intellectual exaltation."

The following gives some idea of the cranial characteristics of the Mongolic physiognomy.

"The characteristic traits in all the countenances are eyes of which the great angle, placed obliquely and downward toward the nose, is but little open and fleshy; eye-brows black, scanty and forming a low arch; a particular conformation of the nose, which is generally

short and flattened toward the forehead; the bones of the cheek high; the head and face very round. They have also the transparent cornea of the eye very brown; lips thick and fleshy; chin short; teeth very white; they preserve them fine and sound until old age; they have all enormous ears, rather detached from the head."—(Prichard.)

Characters of the Negro Variety.—"Narrow and depressed forehead; the entire cranium contracted anteriorly; the cavity less, both in its circumference and transverse measurements; occipital foramen and condyles placed farther back; large space for the temporal muscles; great development of the face; prominence of the jaws altogether; and particularly of their alveolar margins and teeth; conseqnent obliquity of the facial line; superior incisors slanting; chin receding; very large and strong zygomatic arch projecting toward the front; large nasal cavity; small and flattened ossa nasi, sometimes consolidated and running into a point above."—(Lawrence.)

While the materials are just being quarried for the first time for the erection of a structure, it would be weakness to attempt to decide either upon the beauty of the building or its durability. Time here is a necessary element. The same may be remarked in regard to ethnography. We have as yet commenced the inquiry; and many questions pertaining to it are not only not solved, but what is very mortifying will to all appearances for a long time, resist solution. There is no history written by the autochthones of the elder nations concerning themselves to assist in unraveling the men and things of antiquity. The world is reputed, according to bishop Usher's calculation, which is the adopted chronology of Europe and America, to be about 6000 years old. And yet strange as it may seem, there is considerably more than half of this period that is in total darkness so far as what pertains to historical science is concerned.

Not only has man, with almost every thing pertaining to him as he existed in primitive times, been lost sight of, but the names of monarchs and even of dynasties it is believed, are without record any where. The deciphering of hieroglyphics by Young, Champollion, Rossellini, etc., have thrown, here and there, a ray of light upon the general darkness of Egyptian history; but in regard to the natural history of man, things remain very much as they were.

From the facts and arguments accessible to Dr. MEIGS he submits on *cranial characteristics* the following propositions:

"1. That cranial characters constitute an enduring natural, and therefore strictly reliable, basis upon which to establish a classification of the races of men.

"2. That the value of such characters is determined by their constancy, rather than by their magnitude.

"3. That these characters constitute in the aggregate, *typical* forms of crania.

"4. That historical and monumental records, and the remains found in ossuaries, mounds, etc., indicate a remarkable persistence of these forms.

"6. That this persistence through time, as viewed from a zoological stand-point, renders it difficult, if indeed possible to assign to the leading cranial types any other than specific values.

"6. That in the present state of our knowledge, we are by no means certain that such types were primitively distinct. The Historical period is too short to determine the question of original diversity or unity of cranial forms. Moreover, this question loses in importance in the presence of a still higher one—*the original unity or diversity of all organic forms.*

"7. That diversity of cranial types does not necessarily imply diversity of origin. Neither do strong resemblances between such types infallibly indicate a common origin. Such resemblances merely express similarity in position in the human series."

Dr. Meigs has expressed the opinion, from what skulls he has examined, that the older the races, the more do their characteristics approximate to a common type.

LOUISVILLE UNIVERSITY.—The building in course of erection through the past summer to supply the place of the one burnt down, is, as we are informed, in a state of readiness for a session the ensuing winter.

The Alumni of this institution will feel proud that notwithstanding the late disaster, the Faculty are again fully ready for the duties of the ensuing session.

NEW BOOKS.—We have some new books and Monographs on hand, notices of which are deferred until our next issue.

"ABORTION PILLS"—"FEMALE PILLS."—Many of the secular papers of the day have among their advertisements what is denominated "*The Great English Remedy—Sir James Clarke's Celebrated Female Pills.*" The Pills are not only advertised, but are for sale in this city. Now, what is the design of these Pills? The advertisements say: "To married ladies the medicine is peculiarly suited. It will in a short time bring on the *Monthly Period* with great regularity."

Again: "The pills should not be taken by females who are *Pregnant* during the *first three months*, as they are sure to bring on a *Miscarriage.*" The most stupid female in the land, who meditates wrong conduct, will recognize at once in looking over such statements, that here is a medicine that will produce *abortion.* The author says to her, "don't take them if you have been pregnant three months, because they will be sure to produce *miscarriage.*" This is a plain statement of their properties. The statement also contains the caution, designed evidently to shield the author of the pills and those who sell them, from responsibility. The advertisement is essentially an advertisement of "Abortion Medicine;" and none the less improper or immoral because it is *indirect.* Several deaths, it is said, in this city, can be traced to the use of these pills.

DRS. GIBSON AND MUTTER.—These Ex-Professors of Surgery, it appears, from a correspondent of the New York Journal, are at Rome. They design sojourning there the coming winter. It is also stated that Dr. F. W. Sargent, of Philadelphia, had arrived there to reside and practice his profession. Who can but admire the taste that has led these savans to the classic spots of the old world—Rome, the city of a civilization that lasted for twelve hundred years, the city of a people who were at peace profound with all the world for two hundred years, the city of a nation distinguished in all the heroic virtues; and, that even now in her old age, directs and controls the religious polity of some of the first powers in different portions of the earth—who could resist the temptation to dwell for a while within her borders? The men and things that made up her former glory are gone. Her most daring genius has been food for the worms these twenty centuries. Her "Triumphal Processions"—where are they? Where is the Scipio that redressed his country's wrongs, and then "Carried the War into Africa?" Where is Arch-

agathus, among her first Practitioners of Surgery, who, because he did not cure all his patients, was called the "Executioner," and banished from the capital? Where is Vesalius, who gave birth to the study of Anatomy; and Eustachius, and Fallopius?

Rome was without a Practitioner of Surgery for 600 years after the empire was founded; and to-day she is without a single Medical Journal.

Drs. Mutter and Gibson have taken quarters truly on an appropriate spot of earth's surface for a lesson on the ephemeral and perishable nature of all earthly things. The debris of humanity can be contemplated at no place better than in old Rome. "It rests with death to show the weakness of ambition, and the inanition of pride."

Marshall Hall.—We publish in this number of the Journal a short biographical sketch of the late Dr. M. Hall. Everything relative to the deceased will now be consumed with great interest. The public mind is always on tip-toe to get knowledge of all kinds about distinguished personages, and the more especially about those of our own era, who have figured largely in the culture of one of the learned professions. His very manner of existence, habitudes, individuality, looks, sayings, and even his indifferent actions, assume quite a degree of interest.

Dr. Hall exerted the force of his genius on the Nervous System, and crotchety as he found the subject, he labored with no inconsiderable amount of success. We know more of the nervous system because of him.

We shall be pleased to hear that some of his countrymen meditate the getting up of a full biography—a complete account of his life and professional services. Fully he has earned a niche in the temple of fame.

Delinquent Subscribers.—Those who are *in arrears* for the Journal should recollect that it is upon them that, in justice we ought to depend for meeting the current expenses of publication. A remittance from each one of our delinquent subscribers, while it would not be felt by them, would render the business department of the Journal very comfortable. Shall we not receive our dues?

Receipts.—We had intended to publish *receipts* in this number, but they are unavoidably crowded out. They will appear in the next.

Mrs. Cunningham—Dr. Uhl.—This case has elicited no small amount of comment from the Medical press of the country. Dr. Uhl has been pretty generally censured for his connection with it. As we understand it, the opportunity occurred to him *only* to make an exposure of Mrs. C.'s pretensions, an exposure that foiled her in her efforts to get in possession of an estate to which she had no right, and that has thrown light upon her true character—an exposure that has also placed the public mind right in regard to her. In doing all this, however, it is said that Dr. Uhl has violated the spirit of Medical Etiquette; has exposed secrets entrusted to him; and in this way has done more harm than good. The truth is, Dr. Uhl simply turned Police Officer to assist in catching a criminal. His conduct is certainly censurable on the score of *taste*.

Starling Medical College.—This Institution commenced its session of 1857–8 on the 15th ult., and the prospect at the present time is that the Class will be larger than for several years. The session will continue until some time in the month of March, making its length about *five* months.

For some time we have advocated the propriety of an increased patronage of *Western Schools*. We have modestly entertained the opinion that a medical education might be obtained, as well in the Mississippi Valley as elsewhere; and we find that this view is gaining a foothold among all those who give the matter consideration. The *Virginia Med. and Surg. Journal*, in a very well written article, thinks the "Old Dominion" is also competent to confer a thorough medical education.

The nonsensical stampede to eastern schools originates in some very sophistical considerations.

By the way, we had prepared a somewhat lengthy notice of this matter, but our printer tells us that room has got scarce.

Transactions of the Ohio State Medical Society.—We have a notice in course of preparation of this volume, but want of room prevents its appearance in this number. The volume is bound in cloth and contains 226 pages. Our own paper we looked through, and found it defaced with numerous typographical errors. This, we are aware, is to a small extent unavoidable, unless with the most experienced proof-readers.

NEW YORK MEDICAL COLLEGE.

FALL AND WINTER COURSE OF LECTURES.

HORACE GREEN, M. D., L. L. D., Emetrius, Professor of Theory and Practice of Medicine, and Professor of the Respiratory Organs.

E. H. DAVIS, M. D., Professor of Materia Medica and Therapeutics.

B. FORDYCE BARKER, M., D., Professor of Midwifery, and Diseases of Women and Children.

R. OGDEN DOREMUS, M. D., Professor of Chemistry.

J. M. CARNOCHAN, M. D., Professor of Surgery.

EDMUND R. PEASLEE, M. D., Professor of Physiology and Pathology.

HEMRY G. COX, M. D., Professor of Theory and Practice of Medicine, and of Clinical Medicine.

TIMOTHY CHILDS, M. D., Demonstrator of Anatomy.

The Fall Course of Lectures will commence September 15, 1857, and continue until October 30th, when the Winter Course will be resumed. Lectures will be delivered, daily, at the College or Hospital by the following gentlemen:

On Diseases peculiar to Women by Professor BARKER.
On Practical Chemistry by Professor DOREMUS.
On Amputations by Professor CARNOCHAN.
On Diseases of the Skin by Professor COX.
On the Microscope as applied to the Diagnosis of Disease, by Professor CHILDS.
On Auscultation and Percussion by J. HANCOCK DOUGLAS, M. D.
On Practical Obstetrics by CHARLES A. BUDD, M. D.

The Practical Instruction in Toxicological Chemistry will commence three weeks in advance of the Winter Course. Students will have an opportunity of analysing cases from the Coroner. Fee, $5, to defray the expenses of Laboratory.

Terms. For Summer and Winter Course, inclusive, $105; for Summer Course alone $25.

If Students attending the Summer Course afterwards decide to attend the Winter Course, the $25 paid will be placed to their credit in taking out tickets for the Winter Course.

Matriculation Fee, $5.

Letters may be addressed to any member of the Faculty, or to R. OGDEN DOREMUS, M. D., Dean of the Faculty,

New Medical College,
East 13th, between 3d & 4th Avenues.

UNIVERSITY OF MICHIGAN MEDICAL COLLEGE.

SIXTH SESSION, 1856, 1857.

The Annual Course of Lectures will be commenced on the first day of October, and continue six months.

The Annual Commencement for conferring degrees, will be held on the last Thursday of March.

FACULTY.

ZINA PITCHER, M. D., Emeritus, Professor of Obstetrics, and Institutes of Medicine.

ABRAHAM SAGER, M. D., Professor of Obstetrics and Physiology.

SILAS H. DOUGLASS, M. D., Professor of Chemistry, Pharmacy, and Toxicology, and Dean.

M. GUNN, M. D., Professor of Surgery.

SAMUEL DENTON, M. D., Professor of Theory and Practice of Medicine and Pathology.

A. B. PALMER, M. D., Professor of Theraputics, Materia Medica and Diseases of Women and Children.

C. L. FORD, M. D., Professor of Anatomy.

C. P. FANNER, M. D., Demonstrator of Anatomy.

EXPENSES.

Instructions gratuitous; Matriculation Fee $10, payable but once, and applied to the benefit of the Library, and means of illustration. No Graduation Fee, but a charge of $2 for the purpose of the parchment. A fee of $3 will be assessed for the advantage of the Anatomical Laboratory.

For further information, address Silas H. Douglass, M. D., Dean.

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University of Buffalo.

MEDICAL DEPARTMENT.

The annual Course of Lectures in this Institution, commences on the first Wednesday in November, (4th) and continues 16 weeks. The dissecting rooms will be opened on the first Wednesday in October.

FACULTY.

CHARLES B. COVENTRY, M. D., Emeritus Professor of Physiology and Medical Jurisprudence.

CHARLES A. LEE, M. D., Professor of Materia Medica.

JAMES P. WHITE, M. D., Professor of Obstetrics and Diseases of Women and Children.

FRANK H. HAMILTON, M. D., Professor of the Principles and Practice of Surgery and Chemical Surgery.

GEORGE HADLEY, M. D., Professor of Chemistry and Pharmacy.

THOMAS F. ROCHESTER, M. D., Professor of the Principles and Practice of Medicine.

SANFORD B. HUNT, M. D., Professor of General and Descriptive Anatomy and Physiology.

AUSTIN FLINT, M. D., Professor of Clinical Medicine and Pathology.

EDWARD M. MOORE, M. D., Professor of Surgical Anatomy and Surgical Pathology.

AUSTIN W. NICHOLS, M. D., Demonstrator of Anatomy and Assistant in Department of Clinical Medicine.

FEES.

Including Matriculation and Hospital Tickets	$75 00
Demonstrator's Ticket	5 00
Graduation Fee	20 00

For further information or circulars address

THOMAS F. ROCHESTER,
Dean of the Faculty.

Buffalo, 1856.

NASHVILLE UNIVERSITY.

MEDICAL DEPARTMENT.—Session 1857-8.—The Seventh Annual Course of Lectures in this Institution will commence on Monday, the second of November next, and continue till the first of the ensuing March.

THOMAS R. JENNINGS, M. D., Professor of Anatomy.
J. BERRIEN LINDSLEY, M. D., Professor of Chemistry and Pharmacy.
C. K. WINSTON, M. D., Professor of Materia Medica and Medical Jurisprudence.
A. H. BUCHANAN, M. D., Professor of Surgical Anatomy and Physiology.
JOHN M. WATSON, M. D., Professor of Obstetrics and the Diseases of Women and Children.
PAUL F. EVE, M. D., Professor of Principles and Practice of Surgery.
W. K. BOWLING, M. D., Professor of Institutes and Practice of Medicine.
WILLIAM T. BRIGGS, M. D., Adjunct Professor and Demonstrator of Anatomy.

The Anatomical Rooms will be opened for students on the first Monday in October, (the 5th)

A *Preliminary Course* of Lectures, free to all Students, will be given by the Professors, commencing also on the first Monday of October.

The Tennessee State Hospital under the direction of the Faculty is open to the Class free of charge.

A Clinique has been established in connection with the Universiy, at which operations are performed and cases prescribed for and lectured upon in the presence of the class.

Amount of Fees for Lectures is $205; Matriculation fee (paid once only,) $5; Practical Anatomy, $10; Graduation fee, $25

Good boarding can be procured for $3 to $4 per week. For further information or Catalogue apply to

PAUL F. EVE, M. D.,
Dean of the Faculty.

Nashville, Tenn., July 16, 1857.

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Also—Pure Wines and Brandies for Medical purposes.

November, 1853.

RUSH MEDICAL COLLEGE,

CHICAGO, ILLINOIS.

THE ANNUAL COURSE OF LECTURES

FOR THE SESSION OF 1857 AND 1858,

Will commence on Monday, the 2nd of November, and continue Four Months.

The Dissecting Rooms in the College will be opened and the Clinical Lectures in the Hospital commenced on the first Tuesday of October, and will be regularly attended from that time to the end of the College Term.

FACULTY:

DANIEL BRAINARD, M. D., Professor of Surgery and Clinical Surgery.

JAMES V. Z. BLANEY, M. D., Professor of Chemistry and Pharmacy.

H. A. JOHNSON, M. D., Professor of Physiology and Pathology.

WM. H. BYFORD, M. D., Professor of Obstetrics and Diseases of Women and Children.

N. S. DAVIS, M. D., Professor of Principles and Practice of Medicine and Clinical Medicine.

J. W. FREER, M. D., Professor of Anatomy.

JOHN B. RAUCH, M. D., Professor of Materia Medica and Medical Jurisprudence.

EDWIN POWELL, M. D., Prosector to the Chair of Surgery.

J. H. HOLLISTER, M. D., Demonstrator of Anatomy.

FEES.

Fees for the full College Course	$35 00
Dissecting Ticket	5 00
Graduation Fee	20 00
Hospital Ticket	5 00
Matriculation Ticket	5 00

N. S. DAVIS, M. D.,
Secretary of Faculty.